THE BUILDER

A Journal for the Architect & Constructor

MARCH 22, 1929 — No. 4494

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87TH YEAR

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Designed and Carved by Mr. David Evans (*see page* 550).

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXVI. No. 4494. MARCH 22, 1929

HOW SOON TO SPECIALISE?

WE have received a copy of the Report of H.M. Inspectors on the London Junior Technical Schools for Boys.* According to the introduction to this Report, "a Junior Technical School for Boys may be described as a full-time school with a course of either two or three years' duration, ending at about the age of sixteen, and intended to prepare its pupils for entry into certain definite trades or groups of allied trades. It is distinguished from an elementary or a secondary school by the specialised trade instruction it provides, by the very practical bias of the whole curriculum, and by the fact that a proportion of its teachers have had practical trade experience. The boys enter from the elementary schools chiefly and leave to go to work in the industries for which the junior technical schools provide a preparation."

The Junior Technical School is essentially the product of London conditions, and will remain in an unassailable position so long as the conditions ruling the supply of skilled labour in London seem inevitable, whether desirable or not; but if it can ever be shown that these conditions are wrong and avoidable, the position of the Junior Technical School must come up for review. They may still be found necessary, but the main reasons for their existence will be other than now appear, and can no longer be taken for granted.

To some, this type of school appeals as a sensible way of fitting the boy for the job he is likely to be doing all his life. To others the idea of committing a boy to a walk in life he may find uninteresting, before he has reached years of judgment, may seem equally objectionable. Our educational authorities have rather encouraged us to regard the education of the young in a somewhat idealised fashion; and if the obviously practical application of this type of school training seems at first a little incongruous in this atmosphere, it is not so surprising. Without by any means condemning the system that has already done much to meet the purpose for which it was created, we are at least entitled to search for the ideal that must underlie all good works.

If we understand the general drift of thought towards the question of education, we would imagine that our authorities aim to till the fruitful soil of the young mind so that it is fit for any crop that may be chosen. It is a fine idea to turn out boys with a wide general vision, and a judgment approaching the maturity that makes the right choice. But, with all fine ideas and ideals, we should be foolish to blind ourselves to the actual results, many of which fly far wide of the mark that has been aimed at. We know that the minds of very many boys, trained under the most enlightened systems, refuse to fertilise; and we know that many quite bright boys choose for themselves occupations for which they are entirely unfitted. We may imagine that the Junior Technical School represents a school of thought that sees as many evils in a system that leaves the boy to choose unwisely, as in one that makes the choice for the boy. We should say that this school of thought would do much to justify itself if it concentrated upon widening the vision of the boy to see the honour of labour, the joy of craftsmanship, and the pleasure of meeting difficulties with a stout heart.

In the report of H.M. Inspectors for 1928 upon this type of school, an historical note sets out very clearly the peculiar conditions in London that have called for this type of training. Here it is pointed out that congested factory conditions and the abundance of unskilled jobs open to the boy leaving school have militated against the apprenticeship system in London. It goes on to show that, as a result, the skilled trades in London find the majority of their recruits from the provinces. Neither of these conditions is desirable, for the first swells the ranks of trade-less adults, and the second brings in a fresh population where the normal growth is already too fast to be coped with successfully. The education authorities, therefore, promoted the Junior Technical School as an alternative source of supply to the skilled labour market of London, and it is only fair to say that the boys turned out from these schools are largely absorbed into London industry, and that the movement is popular among the master builders of London. This would seem almost a complete reply to those who may have an instinctive dislike for the system.

Turning to the above-mentioned report, the curriculum must do much to reassure such objectors. We can see that this is very different from the child labour scandal that made the industrial revolution in this country a blot upon its history. Specialisation is there, but general education is also well provided for, while physical culture takes a high place in the curriculum. The working hours, also, are much less than those of the trade, though higher than those normally ruling in the elementary schools.

Note is made of a less reassuring fact, viz., that among many of the pupils of these schools some postural defect is apparent, though the note qualifies this with the suggestion that many of these cases may have been in existence before technical training had been entered upon. The point is, however, of first importance, and one that should be kept under observation. At present, the experience of these schools is strictly limited. The first was opened in the year 1901, while by 1906 three more had been added to the total of such schools provided for London. One can gather no reliable statistics from such a limited experience, and it may be that there is really no cause for alarm on this score. It is reassuring to note that the physical culture that takes such an important part in this type of technical training is designed to obviate and correct the possibility of such defects appearing or becoming permanent.

All systems of education have their antagonists, and this will be no exception to the rule. There will be plenty of people who will say that if it is true that the London master builders find the training of apprentices an unprofitable nuisance, the money now spent on the technical schools might be better spent in paying the master builders for the inconvenience they suffer if they do train them; in other words, some form of indenture system from public funds. They will say that school is always school, and alive with the irresponsible element, and that the sooner the boy who leaves the school atmosphere mixes with men and the serious facts connected with earning an honest livelihood, the better. There may be something in this, but to be fair, we must give this type of education a fair trial, and we must recognise the fact that it has already achieved results at which it has professedly aimed.

We cannot close our comment upon this report without reference to its admirable fairness, completeness, and lucidity. It is in every way a credit to the compilers that one cannot read it without feeling that the public funds that have been spent upon its production have been well spent, and that the effort it has called forth has been well worth while. If it were possible to feel the same about every official report that is published, we should probably feel more comfortable about the necessity for many of the post-War departments of officials that have been imposed upon us by politicians of all parties.

* Report of H.M. Inspectors on the "London Technical Schools for Boys," for the period ending on the 31st July, 1928.

NOTES

The Sacristy Controversy.

After the letters by Sir John Simpson and Mr. Guy Dawber, we think it may be taken for granted that the best and most influential opinion in the profession is in favour of the carrying out of Mr. Tapper's Sacristy design. There have been a great many suggestions how this difficult problem may be met in the least harmful way, but we doubt whether the whole of the possibilities have yet been explored. A correspondent thinks that "if we were back in the Middle Ages we should be far less sensitive to the charms of the old work, and might probably build the new sacristy as a detached building out on the open grass to the north side of the Abbey with a cloister leading direct from it into the nave and so provide a fine processional approach for the clergy. We seem afraid to lead our own lives in our own way to-day, however, and there is always a danger lest the antiquary exerts a larger influence than the architect." One point we have found favoured by sound critics has been the possibility of Mr. Tapper getting all he wants by lowering his building, which seems rather unnecessarily high. The Dean, with unfailing courtesy and patience, has so far kept to his view of the matter, that after the most anxious consideration he thinks heis right in holding to this scheme from the design of one of the best exponents of Gothic art in the world. The objections urged against the scheme have not included any quite convincing from the architectural point of view, and many of the signatories of the manifestoes have been from those who have no special claim to any sort of expert knowledge of the subject.

The "New Movement" in House Design.

Nothing we have yet seen appears to us to dislodge the position which the designers in this country still hold as the best exponents of domestic architecture. Following the notable achievements of our Tudor, Jacobean, Queen Anne and Georgian houses, our best modern designers have produced houses instinct with the charm of the older work with the added values of modern convenience and appointments and often much greater excellence of plan design. Our best plans are seldom equalled, and never, perhaps, surpassed for their realisation of the comfort and convenience of home life.

A Skyline of a House in the "New Movement."

Thus it is when we are invited to consider the "new movement," as it is called, in domestic art we are not exactly thrilled by the manifestation of it in the austere and hard effects of the Continental designers in which square lines and empty spaces are filled with box-like pieces of furniture. We have had many illustrations of this "new" movement, and the "Decorative Art, 1929," issued by the "Studio," gives us a number of typical examples. Though we cannot think the attempts to break right away from traditional work have succeeded in producing anything which seems to be at all suitable or pleasing for this country, we are appalled by the outlines of many of these new movement buildings and the complete lack of anything like good proportions and the other things which are necessary to the production of good architectural effect. There is nothing more valuable than quiet restful spaces of plain wall surfaces, but the plain surfaces in these modern designs are often nothing but sheer vacancy and dullness. What can one say of the outline we give here of one of the skylines of a house which, we suppose, is typical of the "new movement." To us it is simply a nightmare. The pottery and glass are certainly the most pleasing part of this Decorative Art number, and are represented by some quite delightful examples.

Bournemouth Pavilion: Entrance to Concert Hall Vestibule.

Messrs. Home & Knight, AA.R.I.B.A., Architects.

The Growth of London.

Mr. Raymond Unwin, F.R.I.B.A., gave a very interesting summary of the work of the Greater London Regional Planning Committee—to which he is Chief Planner at the annual general meeting on Tuesday of the London Society, held at Lancaster House. Mr. Unwin said that the Committee associated 130 local authorities and covered a radius of 25 miles or 2,000 square miles in all. Much of the ground had already been spoiled, but much could be done for the future by taking a single and united point of view. Amongst various dangers they had to face was the proposal to set up in or near Battersea Park a gigantic power station supplying power as far as Dover. This would consume 2,000 tons of coal per day, and discharge daily thirty tons of sulphur on the London atmosphere. These fumes would directly attack Westminster Abbey and the Houses of Parliament. Members of Parliament were discussing the expenditure of a million sterling to repair the stonework of St. Stephen's from the ravages of this very atmosphere of London. It was worth

planting power works elsewhere and paying a little more per unit rather than pay millions in restoring our buildings like this. Towns, after all, suffered from growing pains, and these were made worse by want of foresight. Central London must continue to expand, and must contain a certain number of settled areas in which people could continue to live without being crowded out. Some of our best dwelling areas were being abolished by commercial and profit-making schemes, and the only way to relieve the pressure of population and the scarcity of dwellings was to hasten our building schemes. London for some decades had not been absorbing its own natural increase, but the problem ought not to be insuperable. Above all, London's future ought not to be dealt with in watertight compartments as a merely electrical problem.

Miners' Welfare Buildings. THE seventh report of the committee appointed by the Board of Trade to allocate the Miners' Welfare Fund has just reached us, and it contains some interesting details of building for mining purposes. One point we note is the reference to co-operation between local architects and the advisory staff, which appears to have had very good results as regards the public baths at Coalville and Leicestershire, of which the architects were Messrs. Pick, Everard, Keay and Gimson. These plans are regarded as illustrating the most modern ideas of the subject of public swimming baths. The changing-boxes are in corridors on either side of the bath proper and are so arranged that they do not communicate direct with it; the bathers pass through a shower-bath room before entering the swimming-pool, and the floor surrounding the latter is not accessible to other persons, so that the fouling of the water with outside dirt is prevented. The latest type of filtration plant is installed which ensures that the water is always pure. The swimming-pool can be covered with a spring floor in the winter months so as to be used as a hall for social purposes. A bath of normal size thus converted is capable of seating from 700 to 800 persons, and, in this instance, the accommodation is considerably increased by the provision of a gallery which is also available for spectators when the building is used as a bath. The lay-out of the changing-box corridors is such that when the building is used as a hall they will be available as large dressing-rooms for the people who attend the various functions. The particulars of various types of buildings in this report will be of much interest to architects.

"Horrid Houses of England." MISS CECILY HAMILTON, in contributing an outspoken article on this subject to a contemporary insists that while drawing and music are taught in our schools, our children have no means of learning anything of "the far more important art and craft which concerns itself with the making of our dwellings." To this we might add that the child's instructors know no more of this subject than the child. It is, perhaps, natural that the being known in caricature as "John Citizen" should look with some suspicion on the exhortations of architects who may, he thinks, have some axe to grind. For this reason articles contributed by lay writers are doubly valuable, since we cannot hope to make much progress until the ordinary citizen asks himself this question: "Am I living in one of the horrid houses of England without knowing it?" One feels that the key to the situation lies in the stirring up of a righteous discontent.

Ruins of St. Paul's, Sao Paulo.
See page 549.

Sao Francisco de Paula, Rio de Janeiro.

"Designed by an Architect." IT was pleasant to see in *The Times* the other day a photograph of a house for sale described as "designed by an architect." It has often been the practice to state that a house was the work of some particular architect, and this has rightly implied a negotiable asset, but a recognition by the public that qualified architects, as a whole, produce better results than untrained designers might initiate an incentive to improved design. It would arouse an interest as to exactly what that difference was and in time the elementary fundamentals of design would begin to steal into the public consciousness.

The R.I.B.A. AT Monday evening's meeting of the R.I.B.A., M. Victor Alexandre Frederic Laloux was elected Royal Gold Medallist for the current year. The Medal will be presented on Monday, June 24. At a Special General Meeting, also held on Monday last, the proposal to erect new premises in Portland Place, W., was considered, but no information as to the result of the meeting is available for publication.

K

GENERAL NEWS

EASTER HOLIDAYS.

Owing to the Easter Holidays next week, we publish on March 28. The last day for receiving Editorial copy is Tuesday morning, March 26.

Professional Announcements.

To the position of Diocesan Surveyor for the Diocese of Worcester, commencing July 1, Mr. M. W. Jones, A.I.A.A., A.I.A.S., of 11, St. Martin's-road, Knowle, Bristol, has now been appointed, in place of the late Mr. A. Hill Parker.

Mr. J. D. Hossack, A.R.I.B.A., has removed to 39, Maddox-street, Regent-street, W.1.

After the 25th inst., the office address of Mr. F. Lindus Forge, F.R.I.B.A., will be 13, Hart-street, Bloomsbury, W.C.1. Telephone number . Holborn 2710.

On and after the 25th inst., the address of Messrs. Rowland Plumbe & Partners (J. C. S Mummery, A.R.I.B.A.), will be 107, Great Russell-street, W.C.1. Telephone number : Museum 1039.

Proposed New Theatre, Leicester-square.

The plans for the new theatre, which is to be built on the site in Leicester-square and St. Martin's-street, W.1, for Mr. Jack Buchanan, are now being prepared, the architect being Mr. Andrew Mather, of 38, John-street, Bloomsbury, W.C.1. The new building will be designed to accommodate about 2,400 persons, and will cost some £500,000 to build, including the cost of the site.

The Surveyors' Institution Annual Dinner.

The annual dinner of the Surveyors' Institution will be held on Monday, April 15, at the Connaught Rooms, Great Queen-street, W.C.1, when the Minister of Agriculture, the Right Hon. Walter Guinness, M.P., and a large number of distinguished guests have accepted invitations to be present. In view of the demand for seats, members desirous of attending are asked to send in their names at an early date.

New University Buildings, Hamilton, Canada.

The Officer-in-Charge of His Majesty's Trade Commissioner's Office at Toronto reports that new university buildings are to be erected at Hamilton at an estimated cost of approximately 1,500,000 dollars. United Kingdom firms who are interested in possible opportunities for the supply of either equipment and apparatus for the use of the university students, or of materials, fittings, etc., required for the new buildings, may obtain further particulars, including the names and addresses of the university authorities and of the architects respectively, on application to the Department of Overseas Trade, 35, Old Queen-street, S.W.1.

Old Chingford Church.

The restoration of Old Chingford Church was recently begun, and in two years' time it is hoped to have it reopened as a place of worship. It is believed that there was originally a Norman church on the site. This gave place to a thirteenth-century church, which in the seventeenth century was slightly altered. As the building became unsafe it was abandoned in 1844, when the present parish church on Chingford Green was built. Since then the ancient building has been allowed to fall into decay, the roof has collapsed, the interior has become a forest of bushes and vegetation, and the fabric itself has suffered from vandalism. The work of restoration has been initiated by Miss Boothby, of Heathcote, and it is estimated to cost between £5,000 and £6,000.

Piccadilly-circus Station Paintings.

The series of five panels painted in oils by Mr. Stephen Bone for the decoration of the new Piccadilly-circus Underground Station is now complete. The central panel of the five, which is a map of the world, placed above the triple escalator tunnels, has been in position since the station was opened early last December. On Saturday night, after traffic hours, the remaining four canvases, illustrating various phases in the life of Londoners, were fixed into place, two on each side of the map. The panel immediately on the right of the map depicts the Londoner's pleasures. The panel on the left illustrates Business and Commerce. On the inner sides of the two panels adjoining the map of the world are painted ten medallions, representing the ten chief industries of Britain—transport, agriculture, fisheries, building, printing, cotton, coal, iron and steel, shipbuilding, and wool. The two remaining panels, which are fixed on the side walls above the entrance to the escalator tunnels, illustrate shopping and the amusements of town, the theatre being chosen to represent the latter.

Building Development, Stretford.

The Urban District Council has resolved that application be made to the Ministry of Health for their approval to the erection of 264 houses on the Barton-road site, and that application be also made to the Ministry for sanction to the borrowing of the sum of £126,785 for the purpose.

Mr. H. S. Tuke, R.A.

We regret to record that Mr. H. S. Tuke, R.A., died on March 13, at Swanpool, Falmouth, at the age of 70. He was born on June 12, 1858, at York, in the family house in Lawrence-street; he was the second son of Daniel Hack Tuke, M.D., LL.D., the well-known alienist and governor of Bethlem Hospital. He was almost exclusively a painter of the sea and of sea-folk.

Seven Proposed New Bridges.

We learn that British firms are to have the opportunity of tendering for seven new bridges, to cost £1,200,000, for Jugo-Slavia. The smaller bridges are necessary to accommodate the double track to which important main lines were recently converted, and tenders for the construction and supply of materials will shortly be issued.

Save-the-Countryside Exhibition.

At Croydon, the environs of which are rapidly losing their rural character, a Save-the-Countryside Exhibition was opened on March 16. It has been organised by Croydon Adult School, in co-operation with the Council for the Preservation of Rural England. It will remain open until March 23, and the public will be admitted free.

Building in Canada.

In its annual review of business conditions in the Dominion in 1928 the Royal Bank of Canada calls special attention to the enormous growth of building during the last four years, in preparation for the further expansion in production that is confidently expected. "In the first eleven months of 1928," it is stated, "the total volume of building contracts awarded in Canada amounted to 453 million dollars (£90,600,000) as compared with 247 million dollars (£49,400,000) in the corresponding months of 1924. The amount of money spent for bridges, wharves, roads and streets, and other engineering items increased from five million dollars (£1,000,000) during 1924 to 100 million (£20,000,000) in 1928; the value of the contracts awarded for industrial building increased by 300 per cent. and that for business building by 130 per cent. These percentages contrast with a 56 per cent. increase in residential building. It is encouraging to note that the value of contemplated new construction as derived from recent building permits, and the fact that there are a number of large new projects about to be started, would indicate that 1929 will be another good year for the Canadian building industry."

COMPETITION NEWS

Proposed New Buildings on the Calton Jail Site, Edinburgh.

We have received the following copy of a letter which the President of the R.I.B.A. has addressed to the Prime Minister in connection with this matter :—

Sir,—I am directed by the Council of the Royal Institute of British Architects to bring to your notice the following resolution, which was passed at their last meeting :—

"It is felt that it is specially incumbent upon those responsible for the design of all new public buildings of importance to ensure that they should possess the highest obtainable architectural qualities. In view of the national importance of the proposed new buildings on the Calton Jail Site, Edinburgh, the finest architectural skill available should be employed on their design, and the Council of the Royal Institute consider that this end can best be achieved by means of an open competition among architects."

The Council understand that important Government Buildings and the new Scottish National Library are to be erected on this magnificent site, and they desire to urge for the serious and sympathetic consideration of H.M. Government that the fullest advantage should be taken of this unparalleled opportunity of enriching the beauty of the capital of Scotland.

The question of the design of great national buildings is one with which the Royal Institute have been concerned for many years past, and I have no hesitation in saying that, as a result of a vast amount of practical experience, it has been found that the finest results cannot reasonably be hoped for unless the collective architectural ability of the country is brought to bear by means of a competition.

If designs are produced by one or more of a small group of departmental architects—however able and enthusiastic they may be—it is impossible to count on so fine a result as if the whole of the architectural talent of the country is given an opportunity of competing.

The principle of competition in the case of buildings of outstanding national importance is not only advocated by the Royal Institute and its Allied Societies, but has been accepted for many years by the National Government, and I am asked to express my Council's earnest hope that the usual practice will be followed in the case of the buildings now contemplated.

I am, Sir,
Your obedient Servant,
(Signed) Walter Tapper,
President.

The Rt. Hon. Stanley Baldwin, P.C., M.P.

[It should be noted that (as reported on page 502 of our last issue) the Edinburgh Corporation has agreed to support the resolution of the R.I.B.A.]

Extension of Assembly Hall, King Edward VI Grammar School, Stourbridge.

The following notice has been issued by the R.I.B.A. :—

"The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime, members should not take part in the competition."

Proposed Civic Buildings, Swansea.

The Parliamentary General Purposes Committee of the Swansea Corporation recommends that the erection proceed in Victoria Park, at an estimated cost of £300,000, of new civic buildings, comprising (*a*) administration buildings, (*b*) Law Courts, and (*c*) Assembly Hall, and that competitive architectural designs for the complete civic buildings be invited.

CORRESPONDENCE

Party Wall Awards.

SIR,—As my name has been mentioned by Mr. Keith D. Young, in his letter in your last issue, perhaps I may be allowed to say a few words. When issuing the new edition of my book on the London Building Acts my object was to set forth the law as embodied in the various Acts and the High Court decisions thereon, and not, as a rule, to add explanations of my own.

Section 91 is, in my opinion, perfectly clear, and needs no further explanation. The third surveyor is not an umpire, and is not entitled to act as such. If he were entitled so to do it is conceivable that he might give an award that neither the building owner's surveyor or the adjoining owner's surveyor could accept. In my opinion an award given in the way stated by Mr. Keith Young would not hold water, and could be successfully disputed by either surveyor or client. I should advise Mr. Keith Young to decline to accept the award, and to demand one in accordance with section 91 by the "three surveyors or any two of them."

I agree with the note by the editor, except as regards the owners to be served with notice. If only one owner need be served, which one? If the leaseholder, he might agree to conditions that would prevent the freeholder later on reasonably developing the site on rebuilding.

The party structure notice must be served on every person in possession or in receipt of rents or profits arising from the adjoining premises or in occupation of the same otherwise than as a tenant from year to year, or any less term, or as a tenant at will. But where a particular interest in adjoining premises is owned by a number of persons together, as in the case of a tenancy in common or a joint tenancy, then it is sufficient to serve one only of those persons. (Crosby *v.* Alhambra Co., Ltd. (1907), 1 Ch. 295; 76 L.J. (Ch.) 176.) BERNARD DICKSEE.

Proposed City Improvement.

SIR,—It would, I consider, be a great mistake to terminate the Southern Railway at St. Paul's Station and abolish the connection with the L. & N.E.R. and the L.M.S. systems. It is the only connection in central London between the northern and southern railways. It is used a great deal, I believe, for coal traffic, but not, as it should be, for passenger traffic. Before the War there was a most useful service of trains between the old S.E. & C.R. stations and those on the Midland and Great Northern. It would be very convenient if that service were reinstated. When the Snow Hill connection was constructed it was stated that trains could be run from Edinburgh to the Admiralty Pier at Dover, but I believe it was only used for suburban trains.

The aim should be to take traffic off the terribly congested streets, not put more on them, as the abolition of any length of railway would.

Regarding Mr. Murray's proposed road from the end of St. Martin's-le-Grand to Southwark Bridge, a road from the south end of Moorgate to the junction of King-street and Cheapside would be only about a quarter of the length and form a much better approach. The Moorgate-City-road thoroughfare is much more important than the St. Martin's-le-Grand-Goswell-road route. I put forward this proposal some years since.

W. J. H. LEVERTON.

"Symbolism."

SIR,—I have read with great interest Mr. C. F. A. Voysey's letter on "Symbolism," which appeared in your issue of March 15.

What he says about wallpaper, cotton printing and weaving is very true, but it might be applied to a very much wider and varied field of design. Prof. Lethaby has pointed out repeatedly and convincingly that very little in the way of ornament in ancient and mediæval work is without some symbolic or allegorical meaning.

While admitting that the craze for finding a meaning in everything may be overdone, it is obvious to anyone who has delved in mediæval work that the designers and craftsmen of those days were inspired by some unity of idea or motive which is often lacking in our time.

Mr. Voysey's illustration is excellent and expresses the fundamental idea underlying all good design. The quality of eternal beauty which we find in the great works of the past is very largely due to this recognition that truths and ideas may be expressed in a more or less abstract form and still convey a definite meaning if they are based on what is, after all, an inherent tradition and the historic evolution of a primitive idea.

There is nothing very remarkable about mere originality, but what must be remarkable is an originality which has its roots in the essence of the minds of the past and at the same time interprets the best of the present.

In ecclesiastical work, especially, the ideas and truths which we have to express have been the same through all the ages. Our rendering of these truths may be as modern as we like, but it cannot ignore the association of ideas which is found in all great art. The most modern of art must be out of date in a few years if it ignores this eternal inherent principle.

It would be of very great interest if Mr. Voysey could be persuaded to give us a little more on this important subject.

WILLIAM DAVIDSON.

Plumbing and the Architect.

SIR,—If I may refer to your footnote attached to my note upon the above title, I venture to say that you do not touch my comments at all. For in two places I have definitely stated that your "general public" have no option but to take the house as it is offered to them, and in practically every case they are not told, nor is any hint dropped, that an *extra cost* will be involved in order that the water supply may be *immune from* the effects of frost; and I put it again, quite definitely, that this statement is a true one in your own and practically everyone's experience.

I will add one more point for your consideration, viz.: that it could not cost any more if the pipes were placed wisely, and in many instances less, than is now the practice. In answering this point, think of your own experiences and that of your trusted friends, and I am confident that you will agree that it would seem to be the practice in pipe laying for plumbers (the builders accepting without any thought?) to place as much of their pipes as possible upon the outside walls, and, to do this, frequently must pass all the way to that part of the house farthest from the road mains; and, to make sure of things, put a lot of piping over the floor in the roof, where it is subjected—shall I say—to *draughts*, gales, and cooling breezes, sheltered from sunshine, etc., so that the frost may have every chance to do its work.

I agree with you that the late frost was exceptional in its intensity, and aggravated in its effects by the wind that accompanied it; but I am sure that you do not wish it to be understood that burst pipes do not occur except during such exceptional periods of severity.

You add that it is "unfair to single out" builders and plumbers in this matter of the apportionment of blame for improper methods of building; and I say it is unfair for you to single out the "general public" for blame, when you know that they are *never consulted* in the matter; that they are *made to pay* for the article as it is *presented to them*; and that it costs no more to place the pipes *properly*, and so avoid this annual business of burst pipes, with the consequent damage to ceilings, and subsequent shortage of water.

I do hope that you will re-think this matter out, in the light of your own personal knowledge, and admit frankly what I know must be your own experience; otherwise I would like to have the opportunity of examining into what must be a particularly exceptional and happy case of domestic architecture, building and plumbing combined. P. Q. X.

[**** There appear to be three parties implicated in the criticisms of our correspondent: the architect, the builder and the plumber. We agree that in the majority of cases a member of the general public in search of a house has no choice in the placing of the pipe services, for the houses with their services exist; but certainly, in most of these cases, the architect is not to blame for negligence or ignorance, as he has had nothing to do with the design or erection of the buildings. But whether he is or is not, if the general house-building public insist on competitive prices and prefer, as they appear to do, the cheap house and motor-car and garage to the better class house, they cannot escape some of the responsibility, though we are not forgetting what our correspondent says, that pipes that are placed wisely do not cost more, "and in many instances less than is now the practice." This is a question for plumbers especially and the building industry generally, but we may add that the underlying reasons for defects in house construction are more complex than our correspondent appears to realise, and cannot be stated in a short note. If his argument is that the tenants of the million or more houses erected to meet the national house shortage cannot be blamed for any possible faults of architect, builder or plumber, we have no hesitation whatever in agreeing with him.—ED.]

Candelaria, Rio de Janeiro.
(*See page* 549.)

Burst Water Mains.

The first meeting of the Committee of Experts, appointed by the Institution of Water Engineers to investigate the subject of burst water mains, was held in London on Friday. Mr. A. T. Hobbs, the secretary of the Institution, has made the following statement:—"It was realised that the subject was one of very great and widespread importance and one the complete investigation of which might take some considerable time. It was clear that it was a question at present considerably agitating the public mind. One of the first steps would be to circulate a *questionnaire* to the water authorities of this country, as well as to some abroad, asking for the very fullest information possible."

THE SCHOLAR AND ARCHITECTURE

By a Correspondent.

Studying an art to which the heart responds so readily as is the case with architecture, one is apt to say that there is no room in it for the cold facts of reason. There are, indeed, many, wearied among the dead ends of argument, who have given up the quest as far as their heads are concerned, and who accept as their motive force a fertile intuition. Many of these go far in the practice of their art, and touch nearly to genius. But supposing that they find the truth by this means, it does not follow that theirs is the way to seek it.

The time has passed when the architect posed as one of a professional and artistic hierarchy, into whose mysteries the public had no right to enter. Gone, too, is the time when art was looked upon as a matter of choice for the few, or a thing that the many might lay aside. We think of these things differently now, and look forward to the future of architecture with more confidence than when it was thought not necessary to look forward at all. We see in the architect the one who is to reveal; the executant for others who are to share in his enjoyment; and in art, we recognise something that touches all, whether or not they be conscious of the contact.

How fatal, therefore, it would be if we were to confine our approach to a popular architecture along paths which only the inspired few could follow. We must seek reason in our works that the intellectual, and, indeed, the man in the street also, may see the firm foundation upon which the art of the people may be founded. Many have sought to play this part in liaison, and in my judgment *The Builder* has borne no mean share in speaking as the architect's interpreter in plain English about things that some would utter in bated breath and obscure metaphor. Yet we must all, at some time or other, have felt the insufficiency of words and language in a task so difficult; and when one has risen to catch with a phrase the things we have groped for so long, it is with gratitude and admiration that we must recognise his success. Such an instance, and one of outstanding merit, is presented in Mr. Hope Bagenal's address before the Conference of Teachers of Architecture at the Royal Institute of British Architects. At Conduit Street many learned and thoughtful papers and addresses have been read and heard, but I venture to say that few of these have been so prolific in constructive thought, or more happy in choice of expression. Mr. Bagenal is one in the enviable position of having walked with equal confidence in the paths of science and art, where the many-sidedness of truth stands out pre-eminent. His name has been closely associated with the science of acoustics, which post-War activities have placed so much to the front. But of equal weight have been his essays into the field of æsthetics in speech and script.

In a crisp opening to his address on "Good Scholarship in Architecture," Mr. Bagenal began with the following sentence: "Our problem is how to make significant that which is utterly familiar, how to make English students conscious of it and interested in it." They are words that might be pondered upon by many traditionalists, as well as many of the advanced school of thought. Is it not just here that both fail more often than not? The one may tend to make insignificant by vain repetition, while the other attempts to signify without the signs that all can understand. The idea of architecture as a language capable of attaining the sublime in the use of familiar phrase is an inspiring one, and clears away many of the stumbling blocks from the path of those who yearn for self-expression in times when casual survey shows so much of a pattern. To quote again: ". . . behind familiarity the deepest secrets can remain hidden without danger of discovery." It is surely this very point that is missed by so many who seek to express the change of the times in terms that have no common factor with the past.

On the other hand, Mr. Bagenal criticises fearlessly the work of many ages, finding here and there a fault, even in the mature Greek work we have been brought up to look upon as perfect. In these details we may not agree in the literal sense, but we must commend the courage that dares more than most will dare. Much admiration of historical styles must be discounted where the mind is shut to all but an acceptance of the whole as perfect and beyond criticism. Nothing has done more to sicken the lukewarm than this sort of artificial reverence.

Another valuable point in this paper, which does much to clear the cobwebs from popular theory, is that relating to the modernism that seeks to express architecture only in terms of the mechanics of building. I cannot do better than quote verbatim:—

"For every advantage given us by science there is laid beside it an equal disadvantage. This cancelling out can be seen at every point. I will mention three only. We have communication by air, and thereby the imminent danger in war of the wholesale wiping out of the civil population by chemical poisoning. We have broadcasting, and a perfect capillary system of intercommunication, yet in the Press we can get no nearer the truth of any current conflict or controversy than in the days when rumour alone could carry the news of Waterloo to London in a few hours. The motor-car opens up the countryside to the city dweller, but the result may be that soon we shall have no countryside. All this is to say that everywhere and in all fields achievement returns to the standard of the individual mind."

Very seldom has there been a clearer expression of the insufficiency of utilitarianism alone and the littleness of known fact. Those who would take these littlenesses as their only inspiration will give us a poverty-stricken art to feed on, nay, they will give us no art at all. They will ignore that greater and undefinable thing which, as Mr. Bagenal says, science can destroy but cannot create.

Some of our elder and middle-aged architects of to-day are seriously concerned as to the drift they fear in the educational system of our architectural schools. They see, or imagine they see, a growing irreverence on the part of the young towards those familiar things that are the language of architecture. They see evidence of that foolish striving after the new and impudent sensation, and they fear that this is more an evidence of trifling than a genuine search after self-expression. Learning a craft is tedium to all but those who look forward to sound achievement, and the student has to learn the craft, not only of draughtsmanship and rendering on paper, but that of the units and nature of construction, before the thought of design may be allowed. These same elder and middle-aged men, sincere thinkers whether right or wrong, believe it would be better if the young student were kept at work upon the less intriguing and more arduous copying of sound design; that these young men should be made to keep their imagination in suspense until they are equipped with knowledge. If there is anything at all in this suspicion, and there is something sound in most suspicions, it is indeed fortunate that a conference of teachers of architecture should have been addressed in such clear terms and on such sound lines.

Praise in the present tense is always liable to some modification in the course of time, that 'perspective focus." But I venture, for all that, to express the opinion that this address of Mr. Bagenal's will live in the literature of our times as a monument of sound opinion, clear expression and good style.

THE GOTHIC REVIVAL*

Since 1872, the author tells us, no book about the Gothic revival has appeared. He proceeds to advance several reasons for the neglect, and we feel convinced after reading his interesting book that it was a necessity that the younger generation should have a comprehensive essay upon this curious period in the history of English architecture. The time is opportune; we are far enough away from the period to see its significance, and besides, we are all restudying first principles in these days! In this connection it ought to be mentioned that the author's sub-title—"A Study in the History of Taste"—is the acid test to which he brings all the movements and impulses which contributed to the Gothic revival. Therefore, in saying that the younger generation will gain by reading the book, we mean that those who have only heard about this extraordinary phase should take the opportunity of grasping its significance in the history of taste. "The monuments of the Gothic revival, therefore, are worth studying irrespective of their beauty, provided they once satisfied the imaginative demands of the majority of Englishmen." The latter part of this sentence should make the boldest student pause. To an older generation of architects this book will awaken memories of a period to which they were too close to see clearly, yet not far enough removed to be wholly free from the traditional influence upon their architectural training. That influence is still to be seen to-day.

In his various chapters the author takes us through the survival of Gothic; literary influences; Strawberry Hill; ruins and rococo; romanticism and archæology; and the efforts of the Camden Society. Most wisely, we think, has he devoted chapters to the Houses of Parliament, the fiery and enthusiastic Pugin, Gilbert Scott, and Ruskin. These are fascinating chapters, and if there are digressions, they recreate very successfully the atmosphere of the time. And this is an essential if we seek to understand the Gothic revival.

There are two periods in the Gothic revival—the picturesque period and the ethical period. "Of these two periods, the first is certainly the less distressing; if men must revive a dead style, let them use it for effect and not to satisfy the demands of some obscure, forgotten dogma." From here onwards we are in a land of Noble Edifices and True Principles thoroughly mixed up with morality and religious doctrine. We see Pugin laying down some admirable architectural laws in his writings, and we see in his etchings how cunningly he has weighed the scales with ethics. We see the attempt to revive Gothic architecture by reviving old forms of worship and the reviving of old forms of worship by reviving Gothic architecture. Altogether it is a fascinating tale well told, while through it the author has maintained his historical study of English taste.

This book is a valuable contribution to the literature of architecture. It is carefully and well written in an easy style—in contrast, to our thinking, to the slight introduction, which is curiously uneven, due partly to the different applications and use of the semi-colon. The author has drawn from a wide range of books which are referred to in his footnotes, and has included twenty well-chosen illustrations. The format of the book is delightful.

* "The Gothic Revival." A Study in the History of Taste. By Kenneth Clark. (London: Constable & Co., Ltd.) 21s. net.

PAINTING IN TEMPERA*

IT has been thought, with some validity, that the present age is productive in results which are experimental and short-lived; that its work shows a lack of that more detached and concentrated effort out of which permanent results for the benefit of society are achieved. Whether this is so or not, we may none the less claim for the age that it is one active in inquiry, anxious to know. And if, as Leonardo da Vinci has said, it is more important to know than to do, we can point in more than one direction in which that desire for knowledge is revealing itself. We want to understand the grounds of our belief, and to direct our lives more to first principles: to get down to the solid rock of ascertained truth. So in the arts, where much has been learned, superficially through a one-sided education, we are compelled to see how uncertain are its foundations. The doing of things, production, shows hesitation and experiment, lacking any underlying tradition, showing uncertainty of approach.

If this is the case, which we think may be adventured, it is a pleasant confirmation of our belief to open the volume of the Papers of the Society of Mural Decorators and Painters in Tempera, read at their meetings, mostly held in each other's studios, and now published in a second edition. All the work is of men of well-recognised ability and experience, arising out of long practice in the materials about which they write. The painter's craft is dealt with from many sides, including preparation of walls for tempera painting, fibrous plaster grounds, yolk-of-egg tempera, on colours, fresco, gilding, with recipes for the different processes derived from the past, or contemporary experience. The Society was founded in 1901, and its objects are "the insistence on the need for this recognition of craftsmanship as the foundation-stone of quality in the painter's craft," and, as stated in the foreword, the energies of the Society have been devoted to extending the original intention of the founders for over a quarter of a century. It is difficult to exaggerate the usefulness of such a society, or the permanent value to the arts of its quiet labours. We have but recently had to regret the loss of one of the most distinguished of its members, the late Lady Herringham, who contributes a very happy introduction to the volume, and whose work as artist and writer, and almost heroic labours in copying the Buddhist wall-paintings in the Ajanta caves, are well known.

As stated in the foreword, "It was by careful consideration of the material requirements, between the backing, the ground and the nature of their pigments, that the craftsmen of the past became masters, endowing their works with durability and the gift of mellowing with age"; and though we account this as not being quite the whole of the story, the statement may be generally accepted. Such considerations direct us to issues that are hardly to be dealt with here, but undoubtedly, conception and execution go hand in hand, and there was never a really fine picture without a correspondingly fine technique, so mysteriously are they conjoined. Of the neglect of elementary knowledge in regard to the permanence of methods, we may take an example from oil painting. It is not unusual to see oil painting at the present time so diluted with turpentine as to appear almost of the character of water-colour; of so little substance, and so diluted, that its fugitive character is inevitable. As we turn the pages of this book we see the value of preliminary care and knowledge of ascertained methods founded on the experience of the past and competent contemporary practice. And all the time it is not as though sound methods were so obscure as to be difficult to arrive at, or to place dependence on, as the papers read seem to show. Though no attempt is made to co-ordinate the experience of the different artists, there is enough common ground between them to establish many facts in regard to sound practice of real value to students of the arts, who should have early access to the best knowledge for their guidance. For just as in conduct the early right influences count for so much in after-life, so in the arts, sound principles of work, early acquired, are of parallel advantage. The arts are suffering from the unlicensed opinions which take the place of these more solid foundations, and, consequently, miss their right hold on life For who should take the arts seriously if the artist does not take them seriously himself? The importance in this connection of such a society is at once realised when we consider how much has to be restored and added to existing practice, seen so often to be without adequate foundations. Among the many interesting papers included, Mr. J. D. Batten—a well-known artist and, we believe, the founder, with Lady Herringham, of the Society, and its Hon. Secretary—writes on white pigments, and also on the blackening of vermilion, with an account of the experiments made by him. We can do no more than refer here and there to papers, all interesting and authoritative on the subjects of which they treat. Mrs. Sargent Florence writes on fresco, with all the knowledge of long practice and distinguished achievement in the art. We venture to think, however, that the difficulty referred to as "one of the chief difficulties"—that of the alteration of tone after the colour has been laid on the plaster, may be exaggerated. It is one which we think applies almost equally in tempera wall-painting, but after the first early stages of practice it is remarkable how, quickly and almost intuitively, the perception of this change is foreseen and can be allowed for. Nor need it deter the artist to anticipate this minor difficulty. Mr. J. E. Southall also contributes very interesting papers.

From what we have said, some estimate of the importance of this volume will have been formed. It should be in the hands of all those interested in the material and practice of craftsmanship. Such knowledge is, indeed, invaluable, but when we have arrived at what may be known about methods, the craft of painting, there still remains a vast unknown. Right methods, so good in themselves, cannot be explained beyond a certain distance, and when the master arrives we pant after him, unable to pierce his secrets. We cannot interpret what is reached in ways known only to himself, though built up and aided by acquired earlier experience. For it is the way you paint, determined by what you paint, which must in the end be the one most suited to yourself. And here knowledge is left behind, as the mystery of creation draws its veil over the known.

* Papers of the Society of Painters in Tempera. Vol. I. 1901-1907. Second Edition. (The Dolphin Press.) Price 10s. 6d.

MEETINGS

FRIDAY, *March* 22.

Institution of Structural Engineers. Mr. A. W. Legat on "The Design and Construction of a Modern Factory in Reinforced Concrete." At Birmingham. 6.30 p.m.

SATURDAY, *March* 23.

Royal Sanitary Institute. Discussion on "Smoke Abatement." To be opened by Professor F. E. Wynne. Town Hall, Lancaster. 10.30 a.m.

MONDAY, *March* 25.

Architectural Association. Mr. Hamilton T. Smith on "Modern Furniture." 8 p.m.

WEDNESDAY, *March* 27.

Central School of Arts and Crafts. Sir Banister Fletcher on "Modern Architecture." 6 p.m.

Liverpool Architectural Society. Mr. G. Hastwell Grayson on "Speculative Builders as Clients."

THURSDAY, *March* 28.

Royal Institute of British Architects. Prof. Munro on "Insect Pests in Timber." 6 p.m.

"BUILDER" DEBATE

XVI.—THE R.I.B.A. DEVELOPMENT PROPOSALS.

SIR,—In the following I do not wish to go outside the ground of my reply of March 8 to "Positive," but to draw attention to the fact that paragraph 4 of "Positive's" letter is irrelevant to any contention of mine.

I have not attempted to compare or compute the calls on the pocket of the father of the conventional architect's pupil or professional student of architecture in the 'nineties with that of the father of 1929. That again is a very wide subject, and would involve excursions into sociology and the completely changed outlook of life of more than one social class.

This discussion is essentially one regarding those who have been denied any conventional bringing up, but who are in every way fitted (in "Positive's" opinion) to be recognised by the fraternity.

Let us therefore stick to the point at issue. Few, if any, of this category, who are now, say, between 50 and 55, would be likely to benefit in any serious sense by the proposed admission. In 1909 these were between 30 and 35, and let their chance go by as not worth while; and this at a time when they needed more the kind of help it would have given. Again, anyone 40 or under was then 20 or under, and had he had the grit, he had the means to fall into the queue of normal students. Hence "Positive" pleads the cause of dilution by those who cannot either seriously benefit by nor seriously enrich the membership of the R.I.B.A. beyond such help as their subscriptions would bring.

NEGATIVE.

BRAZILIAN ECCLESIASTICAL ART

BRAZIL differs from the rest of Latin America in that it owes its origin to Portuguese rather than to Spanish enterprise, and this distinction is manifest in its architecture, as well as in its language and customs. Rio de Janeiro, Bahia and Pernambuco recall Lisbon and Oporto rather than Malaga or Seville. Nowhere is this distinction more marked than in the ecclesiastical architecture. The façades especially manifest the Portuguese fondness for ogee curves and pilasters, while the chancels are usually much deeper than in contemporary Spanish work. There is, moreover, a marked absence of domes, and the few that exist are mostly of post-Colonial date, and are generally more Italian than Portuguese in feeling. Again, the use of sash windows, even in the façade, is just what we find in Portugal.

Whilst Bahia, the former capital, is undoubtedly the most interesting city in Brazil, Rio de Janeiro, in spite of much rebuilding and expansion, still retains many fine examples of Colonial art. Very typical is the façade of the imposing church of Sao Francisco de Paula. There is but little carving, and a total absence of statuary. A pleasing feature is the open parapet, with turned balusters, in front of the windows. The doors open into a spacious vestibule, above which is the choir gallery. Another typical church is the Candelaria, which is the largest in the city. It is a cruciform structure, with central dome and two west towers, and dates from the end of the eighteenth century. The façade, which has five portals, is rather flat and featureless. The interior is impressive and well proportioned, though much of the decoration is somewhat garish. The arrangements of the east end are characteristically Portuguese, with the lofty recess in the retable, in which is placed the towering pyramidal erection of gilded wood which serves as a throne for the exposition of the Host. There is the usual spacious choir gallery at the west end. (See illustrations on pages 545 and 547.)

EDWARD T. LONG.

ILLUSTRATIONS

PLATES

Bournemouth Pavilion.

This building is the result of an open competition held in 1923, with Sir Edwin Cooper, F.R.I.B.A., as the assessor. Ninety-eight designs were submitted, and the successful architects were Messrs. Home and Knight, AA.R.I.B.A. The building has been erected in two contracts, the first one consisting of the foundations and the reinforced concrete slab forming the ground floor, together with cellars under. At the same time a terrace in Portland stone was built on the west side of the building, approached by a broad flight of steps, and under this terrace is housed the new pumping station, which replaces an existing one on the site which was out of date. A water tower had also to be erected in connection with these pumps, and the steelwork supporting it was eventually incorporated in the superstructure which followed. The second contract for the superstructure followed, both contracts being carried out by Messrs. Jones and Seward, Ltd., of Bournemouth.

The building can be divided into two sections, the northern part of which is devoted to the concert hall, and the southern part taken up by the restaurant, tea room, etc. The concert hall, which opens off the Westover Road, is approached by a spacious entrance vestibule, with lavatories and cloakrooms on either hand, and has seating accommodation for just over 1,600 people, and standing room for an additional 100 persons standing in the promenoir. The stage has been fitted up not only for concert hall purposes but also for theatrical and cinematograph work, and there has been installed a complete equipment of stage lighting and scenery hoisting devices, etc. On the same floor as the concert hall is to be found a large tea room or dance hall, which will take 300 couples. This room has been fitted with a specially constructed sprung floor, and the electric lighting has been fitted with a three-colour scheme with dimmers.

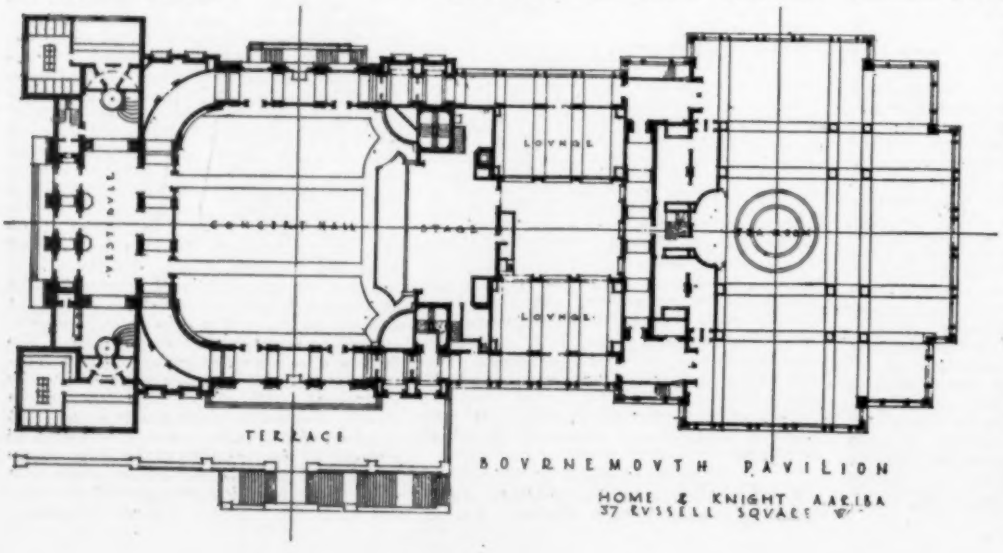
Opening off the corridors leading to the dance hall are two spacious lounges, fitted with dispense counters, for use by the patrons of the concert hall. On the floor below—the mezzanine floor—is a small dining hall, which will seat about 100 persons, and having its own proper kitchen accommodation. On the ground floor the main portion is taken up by the restaurant, with a seating capacity of about 300 persons, together with adequate kitchen and staff accommodation. This restaurant faces west, and has a fine view over the gardens, while the remaining portion of the ground floor is occupied by a large buffet, which opens direct on to the pier approach facing the sea.

With regard to the architectural treatment of the building, the Pavilion externally is partly in Empire Stone and partly in a multi-coloured red facing brick, while the roofs are covered with pantiles. A large stone terrace with a broad flight of steps forms a conspicuous feature of the west elevation, whilst providing convenient access to the building from the gardens themselves. A quiet and dignified architectural treatment has been adopted, sufficient gaiety being provided in the details and by the introduction of yellow paint to the external windows and doors. In designing the interior of the building, the architects have very largely relied upon colour decoration, and the fibrous plaster work has throughout been kept subservient to this treatment.

All the joinery work in the building has been done by Messrs. Jones and Seward, and special reference may be made to the bar counters and fittings behind in the buffet, in Austrian oak, and to the organ casing in the concert hall on each side of the proscenium opening.

The consulting engineer was Sir Owen Williams, K.B.E., the acoustics expert Mr. Hope Bagenal, and the quantity surveyors Messrs. Broad, Babbs and Dockerill, FF.S.I., of Bournemouth. The mural decoration is by Miss Sydenham, of Bournemouth, and the ceiling panel to lift cage by Miss Faith Crickmay. The sub-contractors were as follows:—Sir William Arrol, Ltd., structural steelwork; Val de Travers, Ltd., asphalt; Bath and Portland Stone Firms, Portland stone; Empire Stone Co., reconstructed Portland stone; Thomas Lawrence and Sons, facing bricks; Roberts, Adlard and Co., roofing tiles; Walter Macfarlane, Ltd., special cast-iron gutters; Crittall Manufacturing Co., metal windows; Paragon Glazing Co., metal skylights and sliding skylight to stage; Pilkington Brothers, glass; Stroncrete Co., Ltd., of Bournemouth, pre-cast concrete steps; Diespeker, Ltd., patent floors and terrazzo; R. W. Brooke and Co., of Liverpool, oak dance floor and wood block floors; Francis Morton and Junior, Ltd., patent sprung dance floor; Bell's Poilite and Everite Co., rubber floors and jointless floors; Mumford, Bailey & Preston, Ltd., heating and ventilating, cold water services, fresh and salt water pumps, descending platform; Aish & Co., of Bournemouth, electrical installation; General Electric Co., electric light fittings; Smith, Major & Stevens, Ltd., lifts; Sturtevant, Ltd., vacuum cleaning plant; Mather and Platt, fire hydrants and sprinklers; J. W. Gray and Son, lightning conductors; F. A. Norris, Ltd., fire escape stairs and scenery hoist; Frank Burkitt, stage equipment; J. Caslake, of Bournemouth, and N. F. Ramsay, of London, ornamental metalwork; Edwin Showell, of Birmingham, external lamps; Benham and Sons, kitchen equipment; Adamsez, Ltd., sanitary fittings; Haywards, Ltd., pavement lights; Carron Co., iron manholes; De Jong, Ltd., fibrous plaster and decorative colour work; The Walpamur Co., Ltd., paint and distemper; N. F. Ramsay, Ltd., door furniture; Synchronome Co., Ltd., electric clocks; K.F.M. Engineering Co., "Internalite" signs; Dictograph Telephone Co., internal telephones; Gaskell and Chambers, Ltd., bar fittings; Chatwood Safe Co., safe; Dreadnought Fireproof Door Co., fireproof doors; Kershaw, Ltd., cinema projectors; John Compton Organ Co., organ; John Line, Ltd., Bournemouth, wall papers; Hampton, Ltd., furnishing concert hall, tea room, Lucullus room and lounge; J. J. Allen, Ltd., Bournemouth, buffet, restaurant and lounge.

[Further notes on the equipment of this building are given on page 581.]



New Premises, Edgware.

This building, which embraces new premises for the Express Dairy Co. and Messrs. Cross and Cross, estate agents, adjoins the Edgware tube station, and comprises flats, offices, restaurant and public hall (to hold 500). The work is now nearing completion. The front elevation is carried out in multi-red facing bricks with Atlas White piers. The general contractors were Messrs. Perrys (Ealing), Ltd. The roof is covered with moss-bitten pantiles supplied by Colthurst, Symons & Co., Ltd. The public hall has maple flooring fixed by Messrs. Hollis Bros. and Co., Ltd., and the electric light has been installed by the North Metropolitan Electric Power Supply Co. Other sub-contractors are Walker and Co., Ltd., marble; the Crittall Manufacturing Co., Ltd., windows and roof lights; E. Pollard and Co., Ltd., shop front; the Limmer and Trinidad Lake Asphalte Co., Ltd., asphalt; Dorman Long and Co., Ltd., steelwork; Bell's United Asbestos Co., Ltd., "Decolite" flooring in restaurant; Fram (London), Ltd., fireproof floors.

Mr. A. J. Butcher, A.R.I.B.A., is the architect.

A House in Surrey.

This house has been almost entirely rebuilt, as only one room of the old building (that on the left of the entrance) remained after demolition. The materials used were Kentish ragstone for the plinth and new chimney-stacks, orange-red facings for the brickwork below the half-timbering, with Ham Hill stone dressings. The half-timbering is of oak. Old tiles have been used on all the roofs. Messrs. W. R. Jones and Son were the builders; Wm. Morris (Westminster), Ltd., supplied the casements; Shanks and Co., Ltd., sanitary fittings, and the Coalbrookdale Co., Ltd., stoves. Mr. G. E. Nield, F.R.I.B.A., was the architect.

House, Romney Marsh, Kent.

The difficulty of the site of this house is considerable, as the sea wall is some 18 ft. above the ground level, and in order that the occupants could enjoy a view of the sea it has been necessary to place the living rooms on the top floor. The question of privacy of the bedrooms had also to be considered, and for this reason it has been necessary to place the principal windows on the east and west sides. Mr. G. E. Nield, F.R.I.B.A., is the architect.

Nurses' Memorial, Liverpool Cathedral.

This memorial, illustrated on our frontispiece, is to be placed in the Lady Chapel of Liverpool Cathedral. It has been designed and carved in "Nabresina marble" by Mr. David Evans, the winner of the Prix de Rome, 1924.

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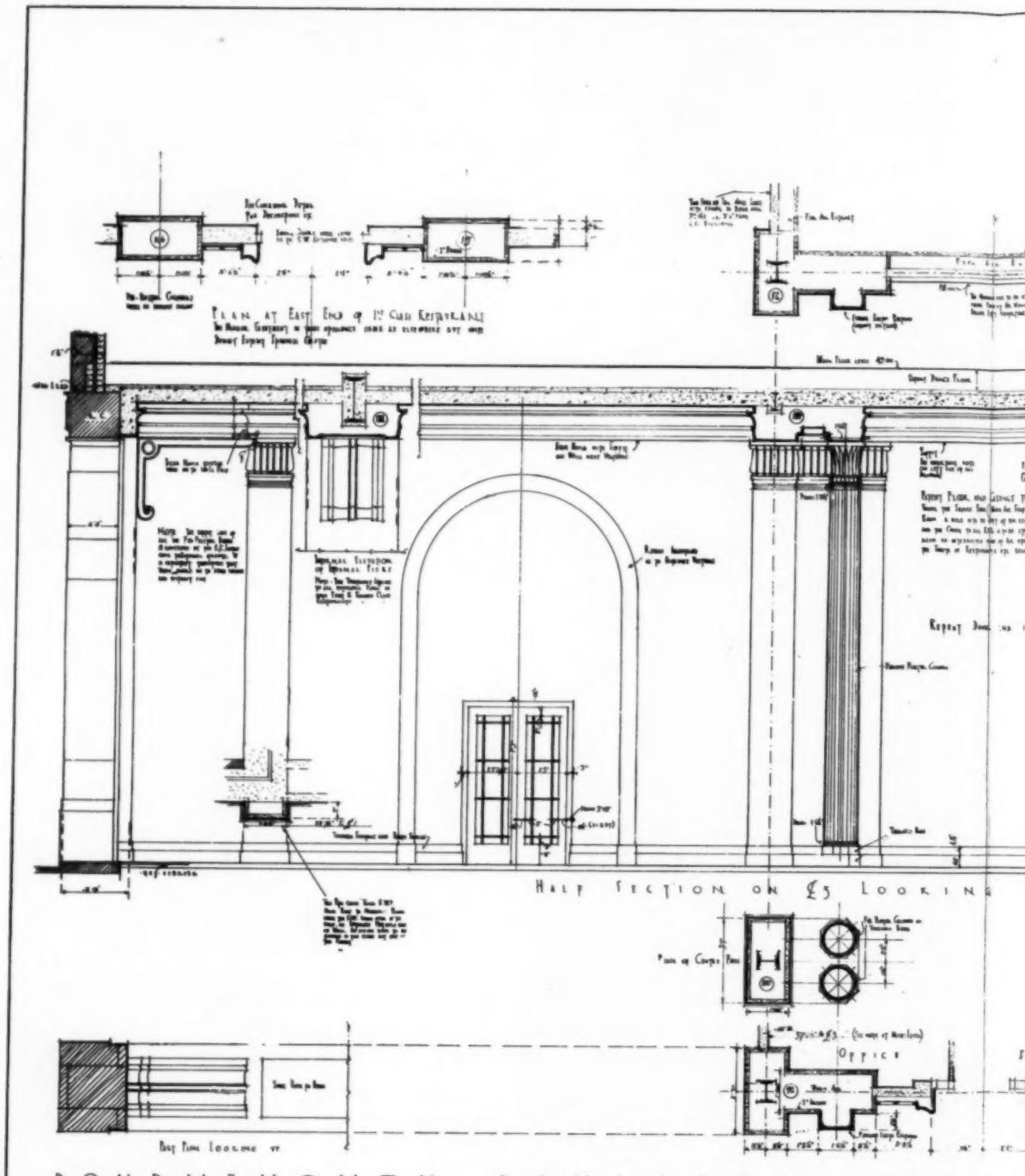
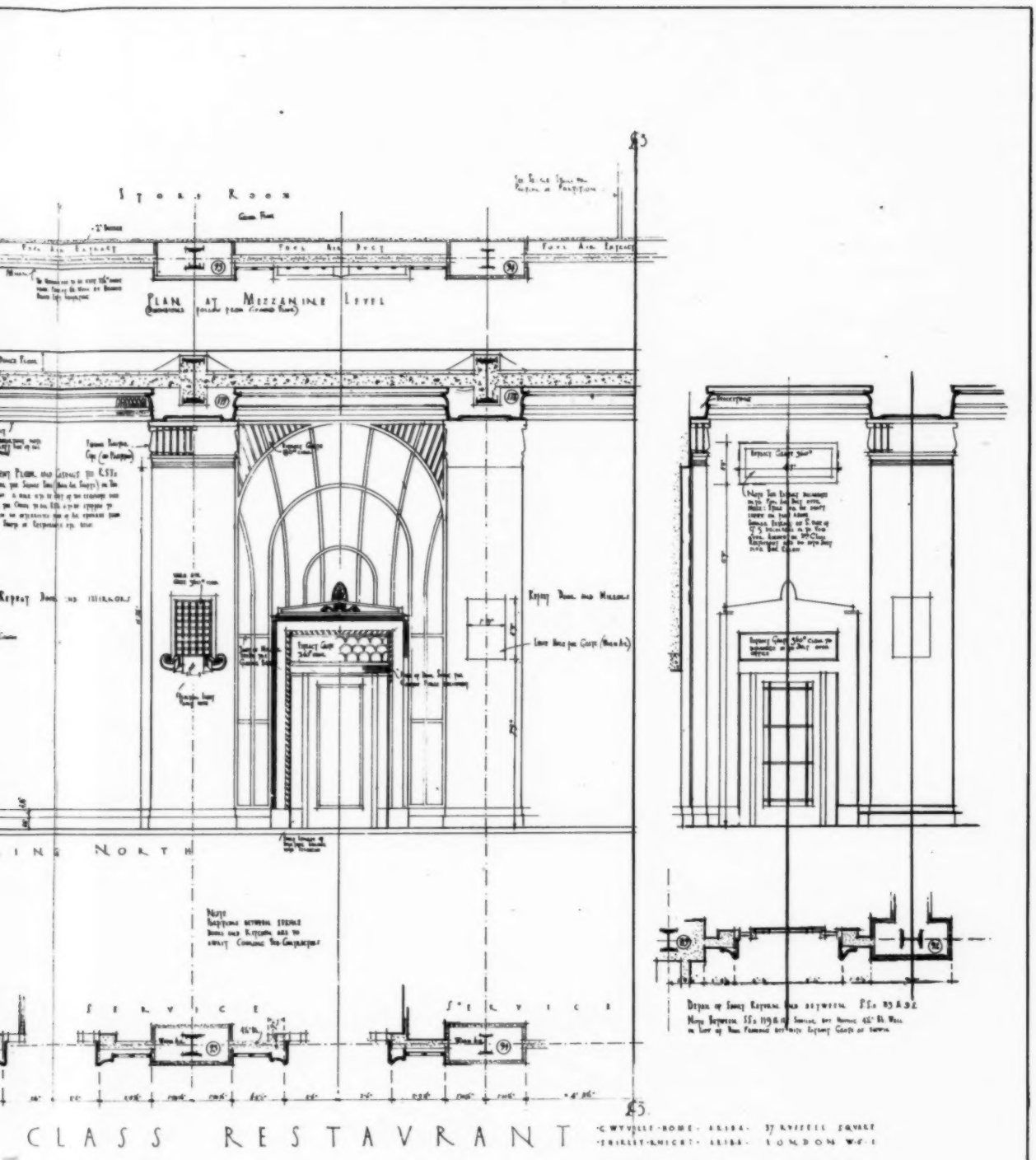


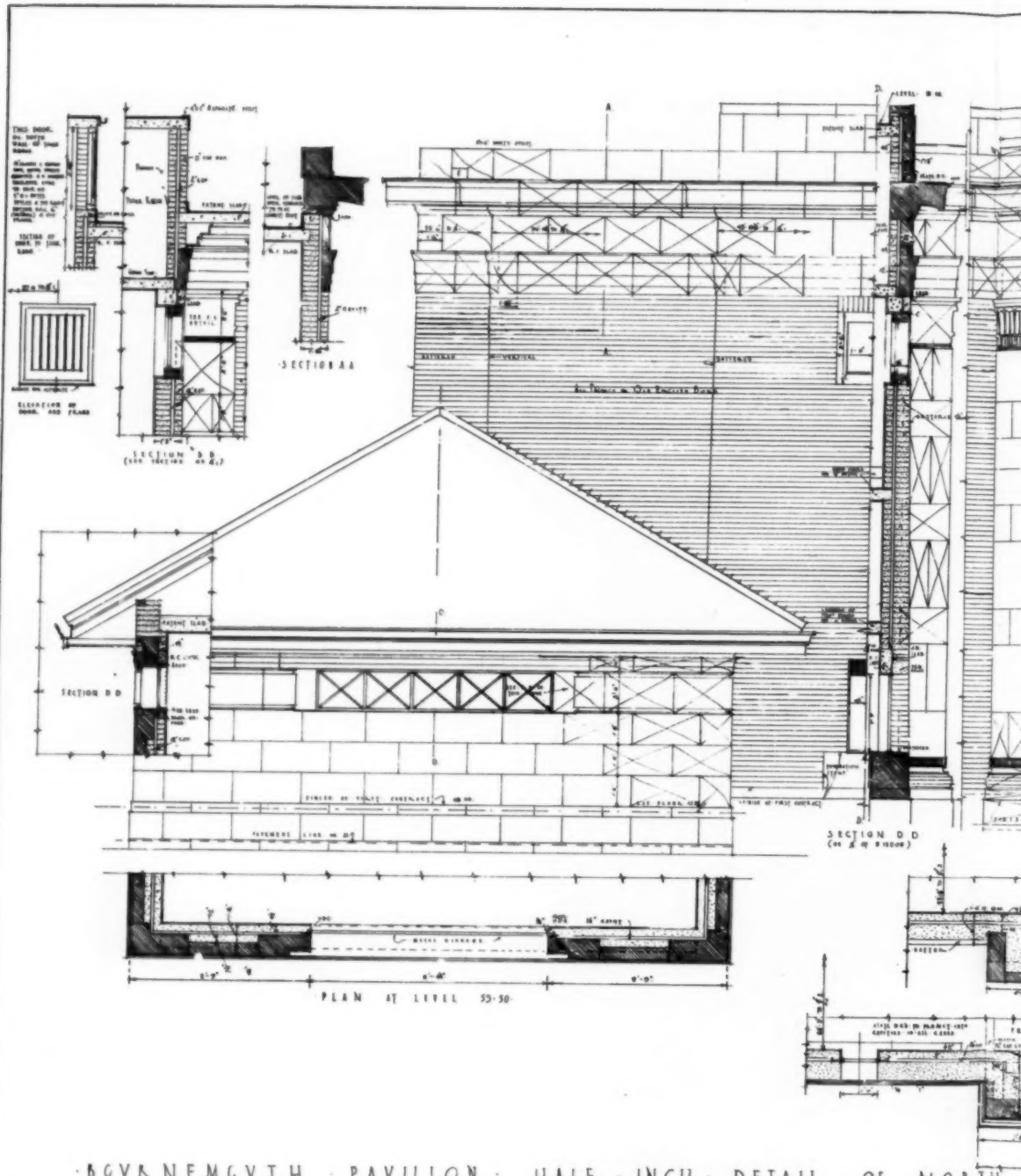
BOURNEMOUTH

Messrs. Home & Knight, A



BOURNEMOUTH PAVILION.

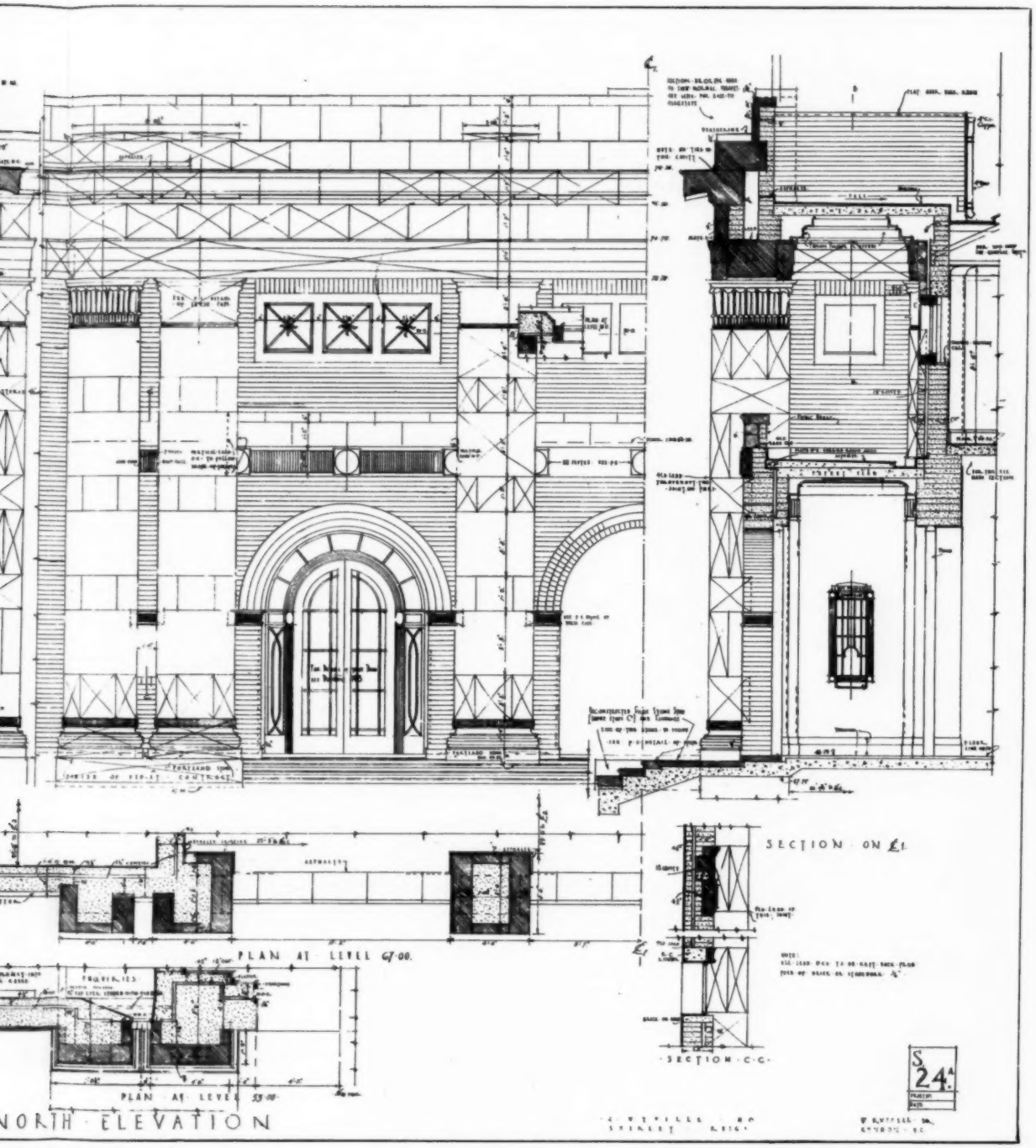
& Knight, A.A.R.I.B.A., Architects.



BOURNEMOUTH · PAVILION · HALF · INCH · DETAIL · OF · NORTH ·

BOURNEMOUTH

Messrs. Home & Knight, A



OURNEMOUTH PAVILION.
& Knight, AA.R.I.B.A., Architects.

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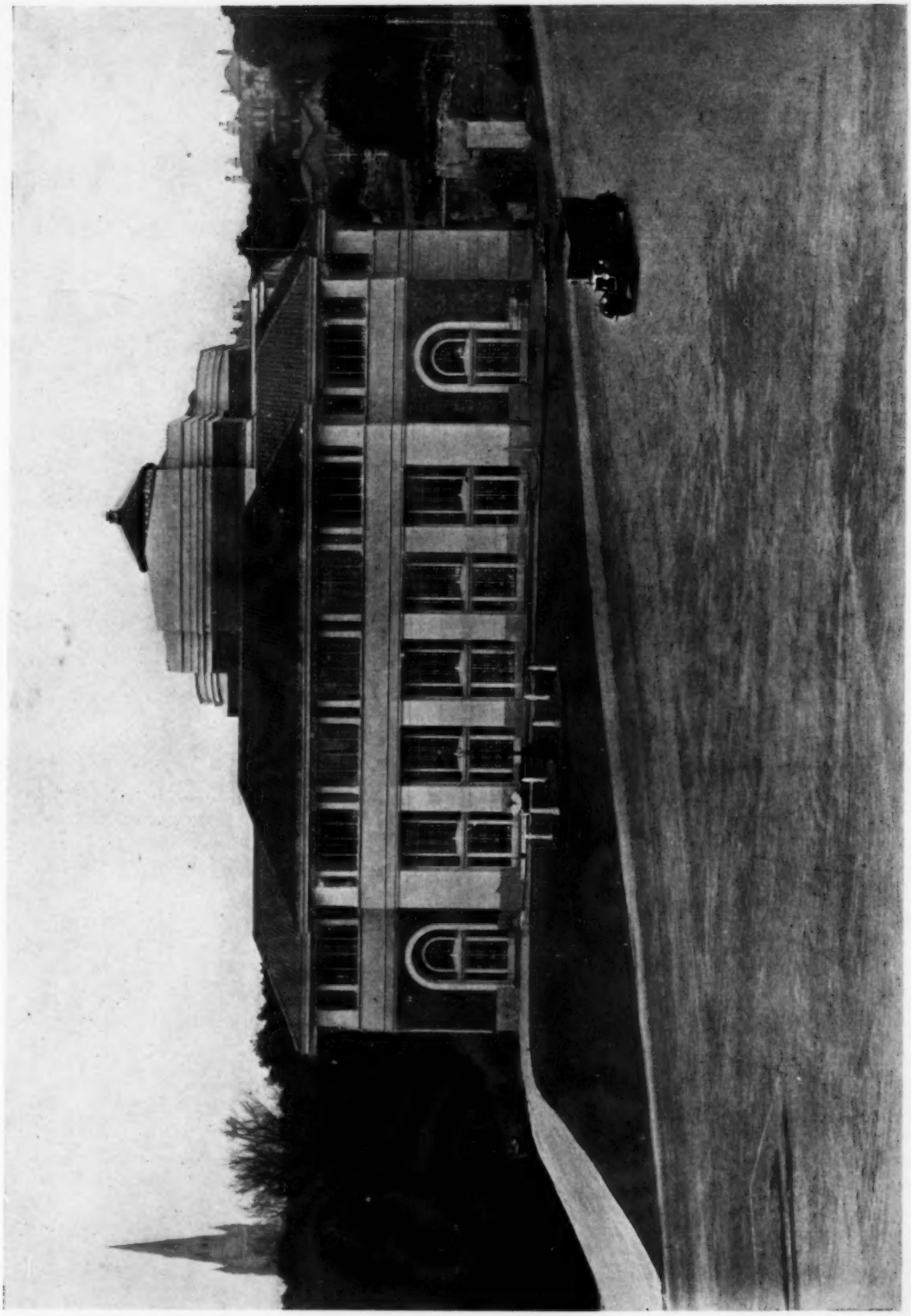

Bournemouth Pavilion : Pier Entrance.
Messrs. Holme & Knight, A.A.R.I.B.A., Architects.

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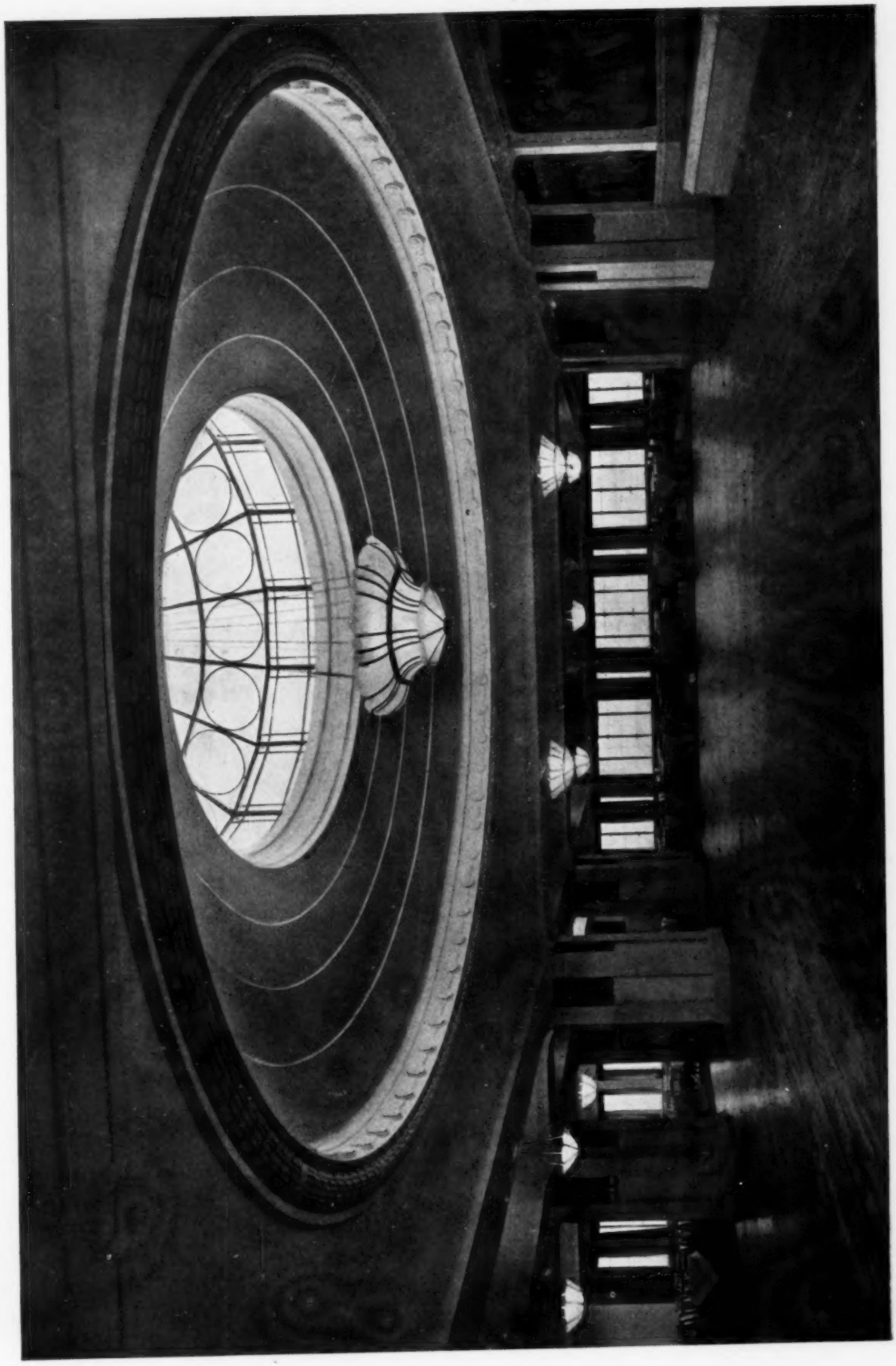

Bournemouth Pavilion: Dance Hall.
Messrs. Home & Knight, A.A.R.I.B.A., Architects.

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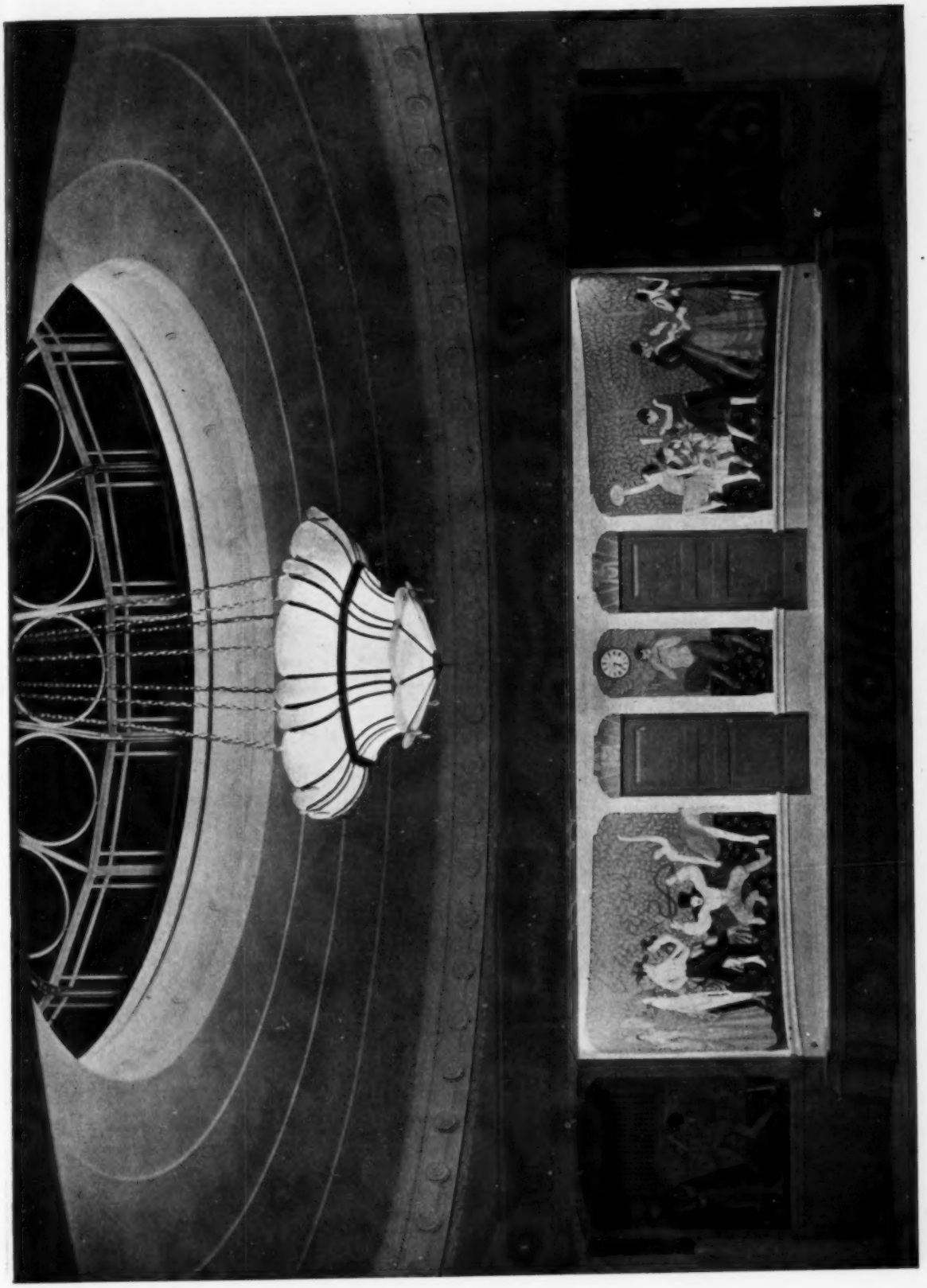

Bournemouth Pavilion : Detail of Stage in Dance Hall.
Messrs. Howis & Knight, AA.R.I.B.A., Architects.

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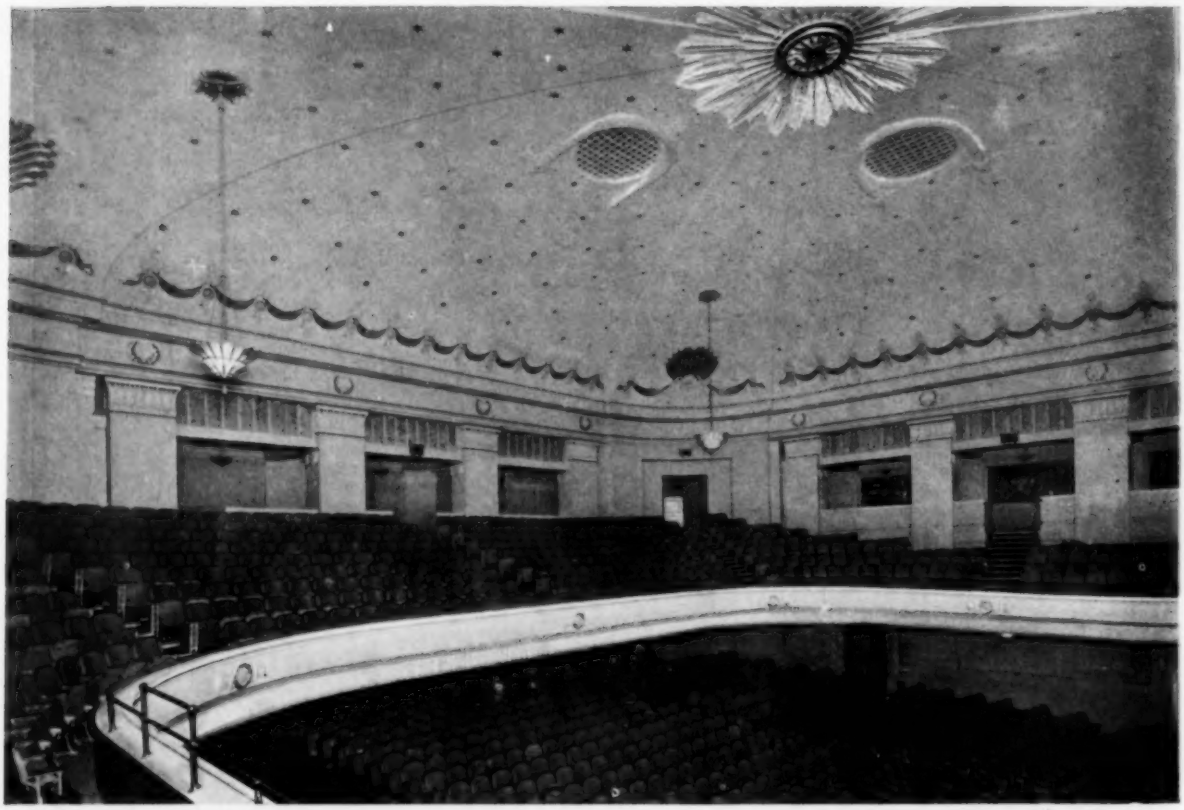
BUFFET.



CONCERT HALL.

Bournemouth Pavilion.

MESSRS. HOME & KNIGHT, AA.R.I.B.A., Architects.

Restaurant.

Lucullus Restaurant.

Bournemouth Pavilion.

Messrs. Home & Knight, AA.R.I.B.A., Architects.

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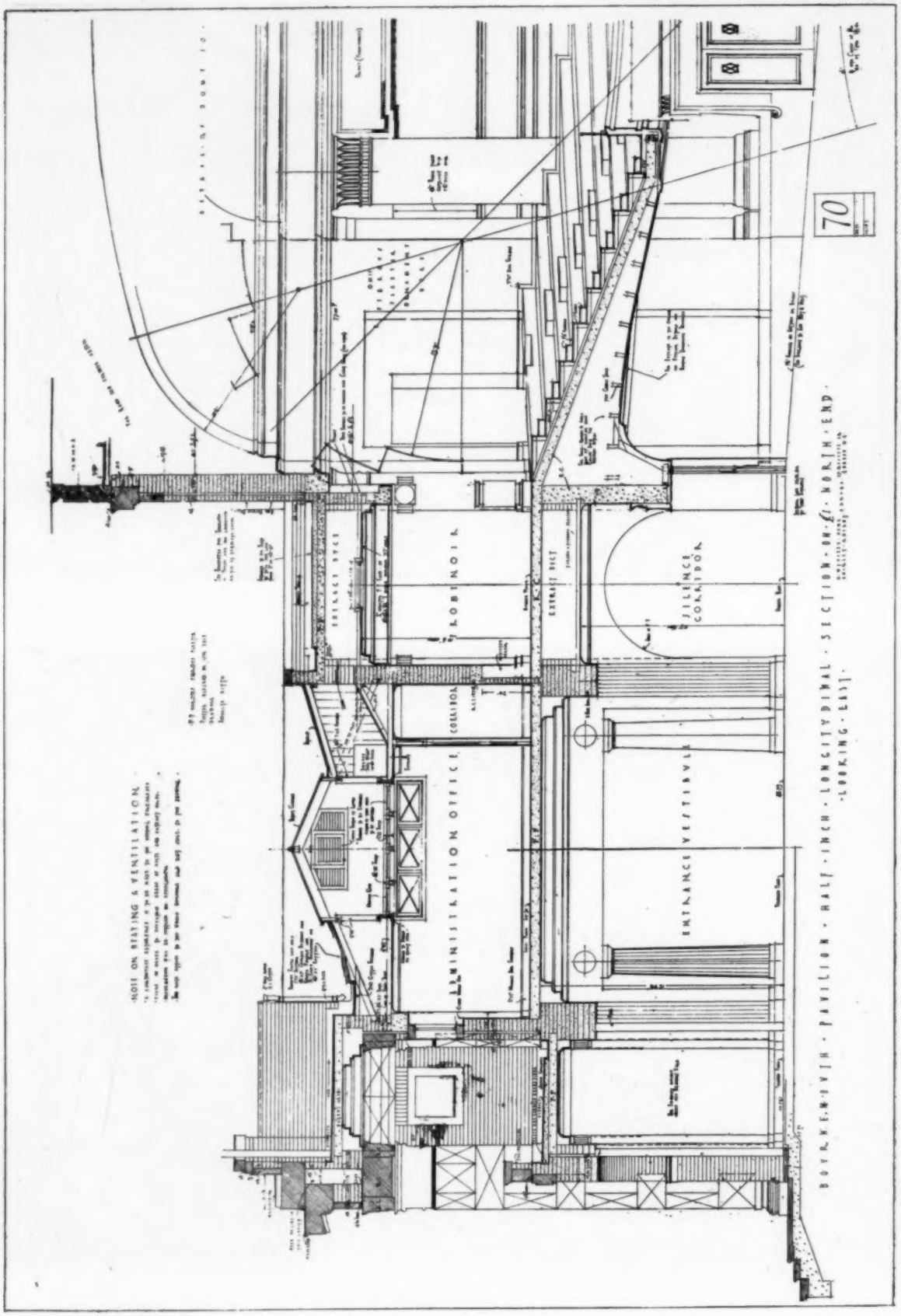
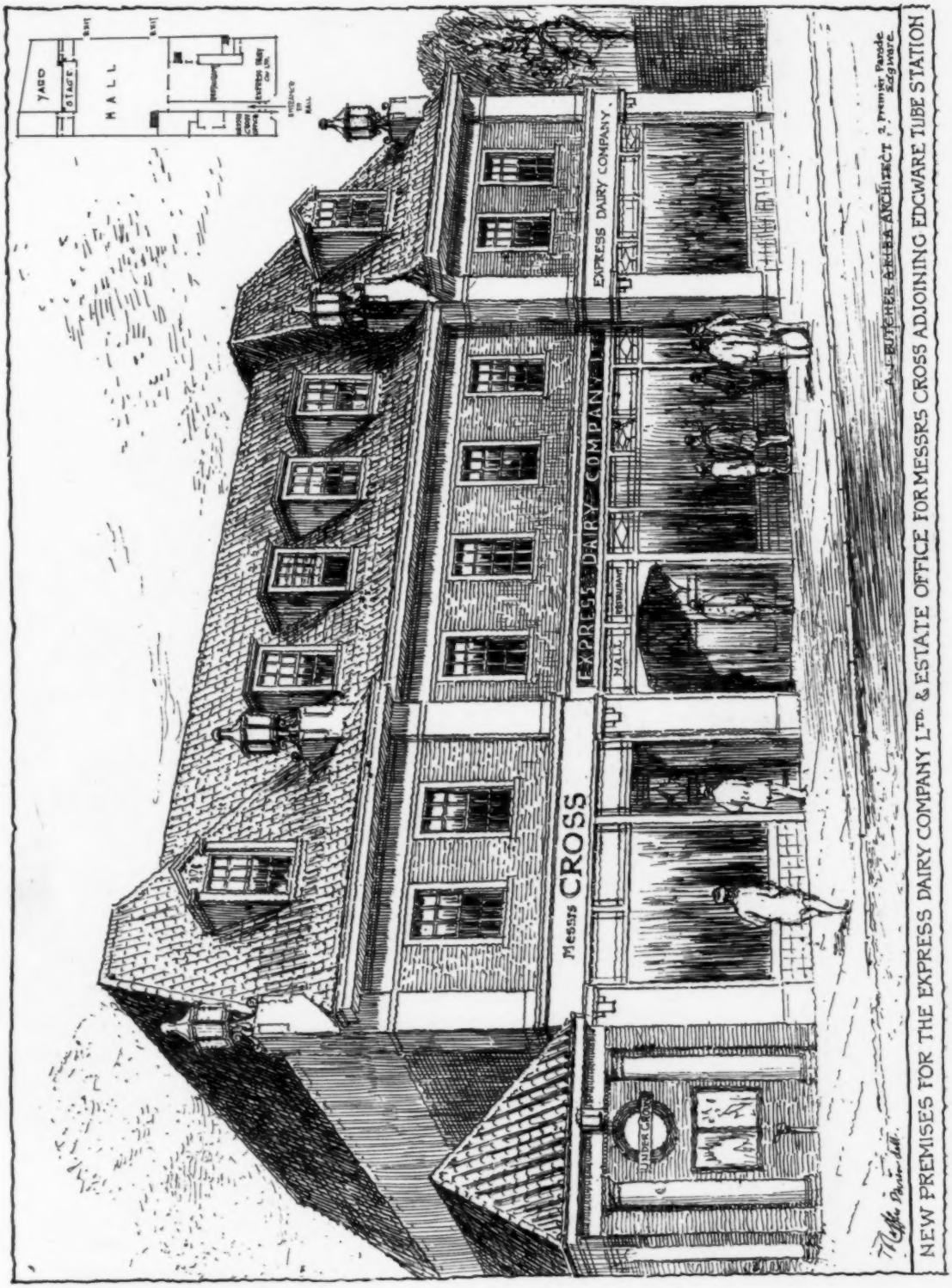


Bournemouth Pavilion.



NEW PREMISES FOR THE EXPRESS DAIRY COMPANY LTD. & ESTATE OFFICE FOR MESSRS CROSS ADJOINING EDGWARE TUBE STATION

Mr. A. J. Butcher, A.R.I.B.A., Architect.

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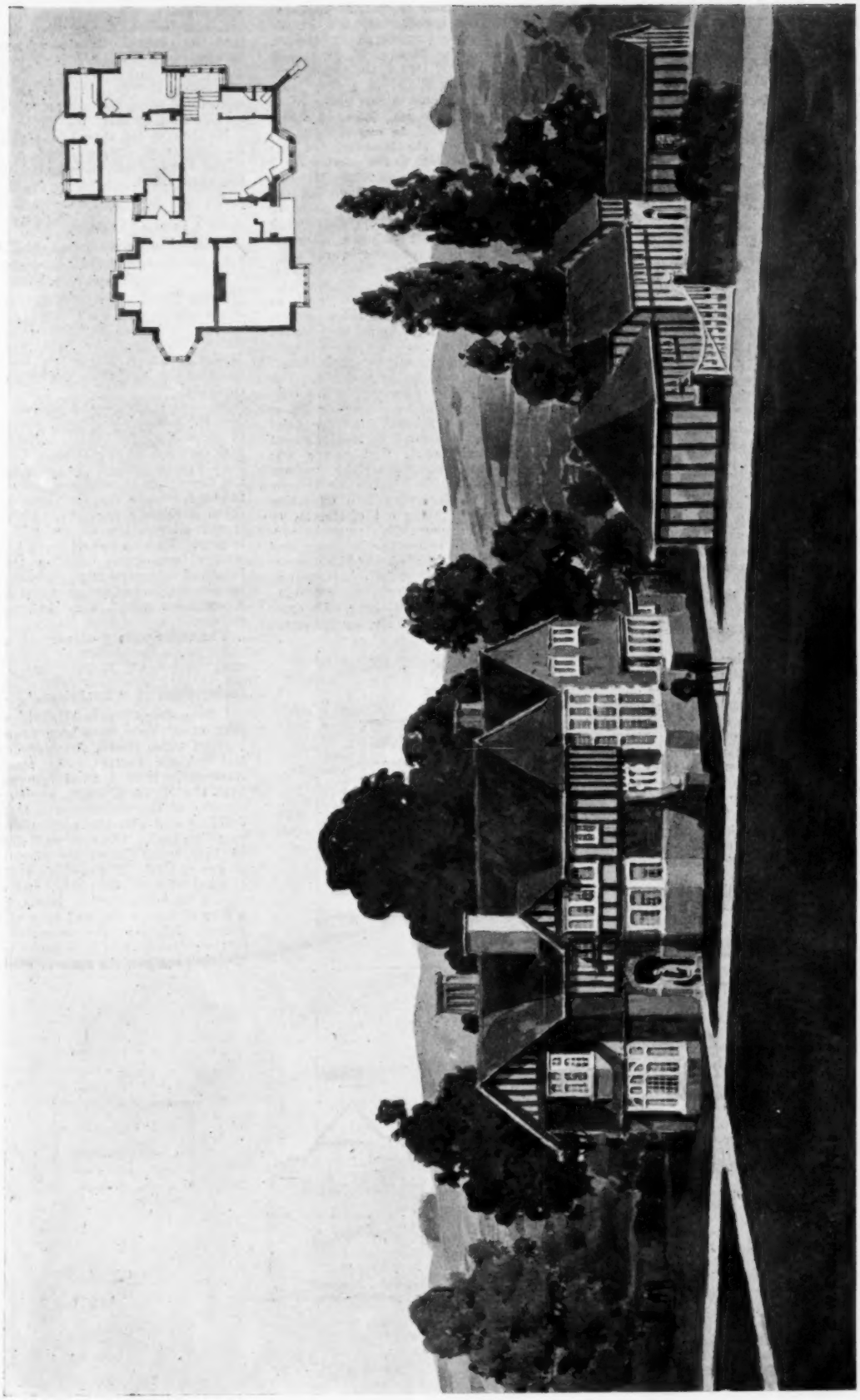
Proposed House, Romney Marsh, Kent.

Mr. G. E. Nield, F.R.I.B.A., Architect.



A House in Surrey.

Mr. G. E. Nield, F.R.I.B.A., Architect.

LAW REPORTS

Court of Appeal.

(The Master of the Rolls and Lords Justices Lawrence and Greer.)

CASE UNDER THE HOUSING ACT, 1925.

Rex v. the Minister of Health.

The Court, on March 13, delivered judgment dismissing the appeal of the Minister of Health from a decision of a King's Bench Divisional Court consisting of the Lord Chief Justice and Justices Avory and Acton making absolute a rule *nisi* for prohibition granted at the instance of Mr. William Davis, a property owner, of Derby, calling on the Minister to show cause why he should not be prohibited from proceeding further in the matter of an order confirming an "Improvement" scheme put forward by the Corporation of Derby.

The scheme provided for the compulsory acquisition by the Borough Council of Derby of the lands included in the scheme, and provided :—"After obtaining possession of the lands included in the area, the Council shall, except so far as the Minister may otherwise direct, cause all the buildings to be demolished and the sites to be cleared. The whole of the cleared area shall be sold, leased, or otherwise disposed of, as the Council may think fit, or may be appropriated or used by the Corporation for any purposes approved by the Minister of Health."

It was also provided that if the Minister so required, the Council would provide a number of dwellings, not exceeding 72, for the working classes, either within or without the area.

It was claimed that the Minister had no power to order an inquiry into the scheme, and had no jurisdiction to consider the scheme further or to confirm it.

It was alleged that the scheme was not an "improvement" scheme within the meaning of the Housing Act, 1925, in that it was not a scheme for the rearrangement or reconstruction of the streets or houses within the area, and in that it was not otherwise an improvement scheme within the meaning of the Act; that it contained a provision for the sale, lease, or disposition of the whole of the cleared land, which provision was in excess of the powers conferred on the Council by the Act and contrary to the terms thereof.

The Divisional Court held there was nothing in the Housing Act, 1925, to authorise a local authority to take, or the Minister to approve, an unrestricted power to sell or lease the lands compulsorily acquired, and made the rule for prohibition absolute, and from this decision the Minister of Health now appealed.

The Attorney-General (Sir Thomas Inskip, K.C.) and Mr. Bowstead (instructed by the Solicitor to the Minister of Health) appeared in support of the appeal; and Mr. H. A. Hill and Mr. Naylor (instructed by Messrs. Few & Co., agents for Messrs. W. H. Sale & Co., of Derby) for Mr. Davis, the respondent.

The Master of the Rolls, in giving judgment, said by the scheme it was proposed to clear the site and then sell, lease, or otherwise dispose of the land as was thought fit, with the approval of the Minister. It was proposed to build houses, to the number of 72 or less, for the working classes if the Minister ordered. Did that proposal embody an improvement scheme within the provisions of the Act? The local authority claimed that it was a good improvement scheme, although it provided for the clearance of the area only, and left the disposal of the land, when it was cleared, to be determined at a later date.

Having referred at considerable length to the material provisions of the Housing Act, 1925, his lordship said he found no warrant for holding that a scheme for mere demolition, without any proposal for replacement or reconstruction, was within the Act. The power to sell or let to other people was only permissible when such purchaser or lessee would carry out the scheme. As the Lord Chief Justice had observed in his judgment in the Divisional Court, that power was guarded by limitations. At the present moment the Council had made no scheme which enabled the carrying into execution either for building, laying out of streets, or providing an open space. No concrete proposal was to be laid before the Minister, and his lordship was not satisfied that the absence of such a scheme was justified, because any scheme propounded by the local authority could be modified by the Minister. He came to the conclusion that an improvement scheme or schemes for the improvement of an area must contain provisions for the user of the land where it had been acquired, and that the proposal to acquire sites in areas, leaving open the question as to their subsequent user until after the Minister had given expression of the purposes for which they were to be used, was not an "improvement" scheme that satisfied the Act.

He thought the appeal failed, and should be dismissed with costs.

The Lords Justices delivered judgments to the same effect.

King's Bench Division.

Ex parte Swan & Edgar (1927), Limited.

(Before Mr. Justice Shearman and Mr. Justice MacKinnon.)

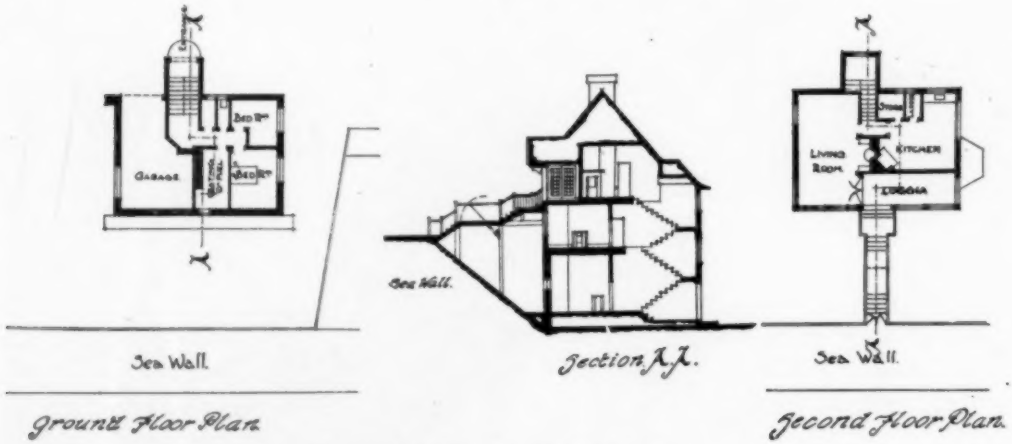
When Messrs. Swan & Edgar's new premises were constructed, the London County Council consented to their erection on condition that the top floor was not used. Messrs. Swan & Edgar last week sought to question the legality of the imposition of that condition.

Mr. Cyril Atkinson, K.C. (with whom was Mr. B. McKay Cloutman), moved on behalf of Swan & Edgar (1927), Limited, for a rule *nisi* directed to the London County Council for a writ of *certiorari* to bring up an order of the Council to have it quashed in so far as it imposed restrictions on the use of Messrs. Swan & Edgar's premises, which restrictions, it was alleged, the Council had no power to impose. He also moved for a rule *nisi* for a writ of *mandamus* directing the Council to hear and determine an application for sanction for the erection of the premises unfettered by a condition which they had no power to impose.

The writs were granted.

Preservation of "Swakeleys."

"Swakeleys," near Uxbridge, with its park of 30 acres, has been acquired by the Foreign Office Sports Association for a social and athletic centre. The trustees of the Association have entered into an agreement with the National Trust, securing the maintenance of the architectural features of the building and also the protection of the surrounding land. "Swakeleys," which was built in 1638, was visited by Pepys during the plague of 1665. The grounds still contain the original stables, dove-cote, and other buildings, a walled-in garden, lawns, holly hedges, a lake of four acres, and part of a great elm avenue. Work on the recreation grounds has started already, and it is hoped to inaugurate the club early in the summer season.



Proposed House, Romney Marsh, Kent.

Mr. G. E. Nield, F.R.I.B.A., Architect. (*See page* 558.)

MINSTER-IN-THANET

To the average holiday-maker at Margate, Broadstairs, or Ramsgate, Minster-in-Thanet is little more than a plausible objective in a short motor-bus ride—and little enough to see, at his journey's end, he may perhaps say, for his shilling return fare! As a village it is uninspiring, and, like the man who was neither "simple" nor "gentle," it is just "in the mean." A glimpse from the road of "The Abbey," or that remainder of it embodied in an existing dwelling-house, and a noble barn which, in its substructure at least, smacks of Norman days, is all we can get of the domestic side of life in the early pre-Reformation centuries. In the old grey church, if we have seeing eyes, we may discover an epitome of ecclesiastical architecture from Saxon and even, in a small degree, from Roman occupation days. The Norman builders of the stately old eleventh century tower must have been gifted with imagination when they incorporated some Roman tiles in their masonry, which may be plainly seen at about the door level on the western front. Lack of new and appropriate building material could scarcely be advanced as an excuse; and if the purists of those days condemned the red patches in their white walls, they now stand for beauty spots in the grey complexion. Pick and spade have revealed evidences of the Roman occupation of Minster, and it was at Ebbsfleet, 2½ miles away S.E., that Hengist and Horsa, not strictly without invitation, landed in A.D. 449, thirty-nine years after the Romans left us to our own devices.

The real history of the English on British soil commenced in Thanet with the landing of the two great pirates, Hengist and Horsa. In 507, when Ethelbert was King of Kent, there was a happier and peaceful invasion by the tidal waters of Ebbsfleet, when Saint Augustine landed as a missionary from Rome, and thenceforward Canterbury, the metropolis of Kent, entered into her own as the great Christian revivalist centre. Minster Abbey, with its sacred relic, the body of St. Mildred, was given, in 1027, by Canute to the monks of Saint Augustine's Monastery at Canterbury, and it became the local centre from which Thanet was evangelised.

Minster's Church of St. Mary, in its various phases of Norman and first Gothic, the result of building and rebuilding from the eleventh to the twelfth centuries, scarcely needs description; it is as plain to read as a child's primer or horn-book.

The Tower and Spire.

An interesting item is the Saxon buttressing tower, which stands at the S.E. corner of the Norman tower. It is probably as old as the eighth-century Anglo-Saxon church at Bradford-on-Avon. We can take it either as the nucleus of the old church as it stands to-day, or as the one surviving relic of a church of the Augustine era. Alternatively, it may have been but one of a series of beacon towers commanding the then wide estuaries north and south from Reculvers to Pegwell Bay that parted the Island of Thanet from the mainland of East Kent. Undoubtedly this slender Saxon tower was originally taller than it stands to-day, judging from the fact that its stairway reaches right into the newer, but still venerable, pyramidal stone roof. Incidentally (and it goes to prove that the Saxon tower is the small elder brother) this stairway is the only means of approach to the upper stories of the main Norman tower. This pharos, if such indeed it was, was approaching the status of a hoary relic when William the Norman landed at Hastings, even if the watchman on the battlements did not actually see the landing and blaze the news to Thanet of the advent of Augustine, the great evangelist.

A. E. R. H.

Church of St. Mary, Minster, Thanet.

SOCIETIES AND INSTITUTIONS

YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY.

Mr. Walter Tapper, A.R.A., P.R.I.B.A., was the chief guest at the annual dinner of this Society, which was held in the Guildhall, Hull, last week. Mr. J. Stuart Syme, F.R.I.B.A., the President of the Society, was in the chair, and there was a large attendance. The Lord Mayor (Councillor B. Pearlman), the Sheriff (Dr. Ritchie Rodger), and Major Sir Arthur Atkinson, J.P., president of the Hull Chamber of Commerce and Shipping, attended in their representative capacities.

Mr. J. R. Macdonald, the stipendiary magistrate, gave the toast of "the City and County of Kingston-upon-Hull," in facetious vein.

The Lord Mayor, responding, asked where there was a city in the United Kingdom of the same size as Hull which could show a more impressive series of educational buildings than those on the Cottingham-road. He had hoped that the Hull Trinity House, with its abundant resources, would have built a new institution for the training of men for the sea, worthy of the third port of the kingdom. They could afford it. The Corporation might one day remove the Grammar School to more suitable environment. The school of Marvel and other great men was situated in a back street off the main road. It might have been suitable when Marvel was attending there, and there were only 80 students, but it was totally unfit for an ancient foundation with a unique history and 500 students in attendance. A new school should be erected, with playing fields and all the accessories of a modern public school, in the suburbs of the city. In connection with the architectural profession, the speaker paid tribute to the services of those Hull members who were taking part in the municipal administration of the city, and whose sacrifice of time and money was, he said, unparalleled among the professions of the city.

The Sheriff and Major Sir Arthur Atkinson also replied to the toast, the latter observing that the Hull Trinity House was a benevolent institution and their funds were used principally in charity. He did not know where they might be able to build a new institution such as the Lord Mayor suggested, but he would bring the matter to the notice of the Board.

The toast of "The Royal Institute of British Architects" was proposed by Mr. G. Dudley Harbron, vice-president of the York and East Yorkshire Architectural Society.

Mr. Walter Tapper, replying, said that in a great industrial city such as Hull, with its docks and shipping and factories, it might be natural to think that the people were so busy accumulating wealth that they had little time to turn their thoughts to the dignity and beauty of their surroundings. He was glad to say that this was not always the case, as was evidenced in Cardiff, Liverpool, and Southampton. He knew something of what had been done in Hull to make it a

finer city. The work of men like Sir Alfred Gelder would never be forgotten, but he was sure that not only the architects of Hull, but also those who had the vision, would agree that until something more was done they could not rest satisfied, and that many schemes of improvement and development must be undertaken before that famous seaport could claim to be worthy of its great wealth and fame. He understood the Corporation was now considering some very important proposals and that a complete new street might be the outcome. He was delighted to hear it. They must bring to bear upon it, however, the finest architectural ability that could be found in this country. If he might make a suggestion, without presumption, he would advise the Corporation to consult the York and East Yorkshire Architectural Society, the members of which understood the pros and cons and the special needs of the city and were just as keenly interested as they themselves in the development of Hull. It was often urged that there was not the money to carry out these schemes, but the speaker dissented from this view and pointed out that money was being spent in dog racing and dirt-track racing, at cinemas and at golf, and they saw on every hand that money was spent lavishly. A mere fraction of that money, spent in the development and the beautifying of their cities and towns, would make England a place worthy to live in, and in a generation would produce results which would amaze those of little faith in architecture. The reason why we had ugly places and mean streets and the squalor of it all was because people had never been conscious of architecture; they had never been taught in their schools, colleges and universities that it really mattered. He was glad the education authorities of the country were seconding their efforts in this direction.

Mr. C. M. E. Hadfield, president of the Sheffield and South Yorkshire District Society of Architects, submitted the toast of the York and East Yorkshire Architectural Society, and Mr. J. Stuart Syme, in reply, said that their aim would not be achieved until all unworthy architecture had become a thing of the past, but that result could not be achieved without the co-operation of the general body of citizens. The Bill for the registration of architects presented to Parliament last session fell a victim to lack of interest in the House, in which only some 30 members considered it sufficiently important to induce them to attend. This and other facts showed that the architect did not occupy a position in the public estimation to which the importance of his art entitled him. There was no more certain criterion of a country's civilisation than the quality of its architecture.

Mr. F. J. Horth, vice-president, proposed the toast of the guests, for whom Mr. E. H. J. Chambers, LL.B., the under-Sheriff, responded.

WEST YORKSHIRE SOCIETY OF ARCHITECTS.

At a meeting of this Society, at Leeds, on March 14, a lecture was given by Mr. D. S. Andrews, A.R.C.A., on the subject of "Lettering." The lecturer, who is Principal of the Leeds College of Art, in reviewing the application of lettering to its various purposes, stressed the importance of good plain lettering, free from so-called "artistic" distortions. The Roman lettering on the Column of Trajan formed a good code on which to work; and only recently the whole of the lettering for the street names in the Royal Borough of Kensington had been altered to Roman type characters. As regarded buildings and monuments, inscriptions on such ought to be of permanent character type, and, seeing that they were intended to last for some generations, should exhibit no trivial or distorted features. Simplicity and legibility were frequently absent from modern displays composed of lettering; but, even applied to ephemeral objects, a definite and clear code of lettering without any "frills" should be adhered to. Signwriters were often the worst culprits in this respect. Good spacing was of great importance, and the want of this often spoilt the balance of the lettering in a decorative sense, and ruined the otherwise easily read meaning of the inscription. As for lettering on architectural drawings, the lecturer said that he preferred to see this partake of the same character as the drawings themselves.

Mr. C. Sunderland, proposing a vote of thanks, urged that an earnest study of the subject would repay the young architect. As to the inscriptions on buildings or monuments, these should not be left to the sculptor to determine so far as the type and general arrangement were concerned; all that should be designed by the architect.

Mr. F. Chippindale, seconding the vote, said he thought that far too much importance was attached to the lettering on plans and drawings. Lettering in Roman characters could hardly be done correctly except by mechanical means; otherwise, script lettering would be preferable.

Mr. F. W. H. Allison said he thought that the ultra-modern type of lettering was obtaining too great a hold on architectural students; and, in his opinion, made for illegibility. In spite of the modernity of the building, the signing of the architect's name on the new Horticultural Hall was executed in Roman type lettering.

Mr. G. L. Broadbent said that in his opinion character played the most important part in lettering. Some people seemed to have the lettering sense more strongly developed than others.

ABERDEEN SOCIETY OF ARCHITECTS.

At the annual general meeting of the Aberdeen Society of Architects, at which Mr. Clement George, the retiring president, was in the chair, Mr. W. L. Duncan, architect, Turriff, was appointed president of the Society and, as such, a vice-president of the Incorporation of Architects in Scotland. Mr. W. E. Gauld was appointed vice-president, and the other members of Council were elected as follows:—Messrs. A. B. Gardner, D. S. M'Millan, John G. Marr, R. L. Rollo, T. Scott Sutherland, and George Watt, along with the Associates' representatives, namely, Messrs. Jos. A. Allan and Ian A. Moodie. Mr. Clement George, as past president, was elected as the Society's representative on the Council of the Incorporation. Mr. W. E. Devie, advocate, was reappointed secretary and treasurer.

CENTRAL SCHOOL OF ARTS AND CRAFTS.

Sir Banister Fletcher, F.S.A., F.R.I.B.A., devoted his lecture at the Central School of Arts and Crafts on February 27 to a study of the life of Sir Christopher Wren, and of the remarkable amount and variety of his work carried out in the late seventeenth century all over this country, both in brick and stone. An outline was first given of his academic career at Oxford, and the way in which his architectural abilities grew out of astronomical and mathematical interests. Wren travelled extensively in France, and made a prolonged stay in Paris, where work on the Louvre was being continued, so that his version of the Renaissance differed from the more strictly Italian types of Inigo Jones, who preceded him. He erected many houses throughout England of great stateliness and dignity, which formed the basis of Georgian domestic architecture, and some palaces as well, such as those at Kensington and Winchester, while Chelsea Hospital and Greenwich Hospital—that magnificent scheme incorporating the "Queen's House" by Inigo Jones in the fine lay out—were well-known examples of his more public architecture. Sir Christopher Wren would always be more thought of, however, in connection with his fifty-three City churches, which were ingeniously designed to fit awkward sites with simple yet noble façades.

BOOK REVIEWS

Skyscrapers — And the Men Who Build Them. By Colonel W. A. Starrett. (New York and London: Charles Scribner's Sons.) 347 pp. 132 illustrations. 8vo. cloth gilt. 12s. 6d. net.

"In the skyscraper America creates something new." That is to quote the heading of Chapter I. We suppose the author is right that the skyscraper is the most distinctively American thing in the world. On the first page of his text he says, "I have seen the unfolding of practically the whole drama myself, for while I have just passed the half century in years, I have keen recollection of the building of the first skyscraper that could truly bear the name in the modern acceptance of the term." We hold no brief for, or against, the skyscraper or cloudscraper in America. It is the business of the Americans, and apparently solves their difficulties, though American opinion in favour of such structures appears to be changing. The author of this book, however, appears to have very decided views that Americans recognise the skyscraper as another of their distinctive triumphs, another token of their solid and material growth; "for when a great building starts, all the world is a builder and the whole citizenry of a metropolis takes to its heart the swift and skilful accomplishment. The drama as it unfolds excites wonder and admiration. . . ." And from such reflections we soon get to the gist of the matter: how and why the skyscraper came, what it is in main essentials and details, how the materials — steel, stone, and other items of construction and finish — are forged, hewn, made, moulded and assembled. The author, who is a member of both the Civil and Mechanical Societies of Engineers, claims that he is the first to have ever written the history of the skyscraper, and he gives us what there is of lore in the craft, if the term can be applied to something little more than half a century old. The illustrations are quite excellent, amply helping out the very informative text.

Foundations. The Examination and Testing of the Ground Preliminary to the Construction of Works. By William Simpson, O.B.E., M.Inst.C.E., etc. London: Constable & Co., Ltd. 1928. 18s. net.

This is a valuable addition to the Engineer's and Builder's Library, for it is written very simply, and will be readily understood by the junior members of the professions. The treatment is almost non-mathematical, and is obviously the result of actual practical experience, including roads, tunnels, reservoirs, docks, and similar undertakings. It is common experience to hear the phrase that if the foundations are secure, the superstructure will be safe; yet one hears much too frequently to-day of buildings sinking, cracking, etc., due to failure of the foundations. The real difficulty is that the surface soil covers and hides very safely what is beneath, and very frequently, for want of time, incorrect inferences are made.

The practical knowledge of the author has therefore led to the writing of a book dealing almost entirely with the subject of the "*Methods of Examination*" that are in use to learn as exactly as possible what is underneath the proposed site. Only two chapters out of eight do not contain the words "Methods of Examination" as a headline descriptive of the subject matter. The text is copiously illustrated with some 230 figures, so clearly showing the difficulties met with that the treatment required to ensure safety is obvious. If the author's advice on the examinations of sites might be paraphrased, it would be: Do nothing, until you are quite certain that you know accurately what there is between the surface and the hard rock beneath at all points on the proposed site. This can only be done by systematic examination by means of boring, etc., and the author details how this may be done.

INSTITUTE OF DECORATORS

Mr. W. Park Douglas, V.P.I.B.D., read a paper on the subject of "Some Themes that Have Influenced the Decorator," at Painters Hall, recently, when the President, Mr. Godfrey Giles, was in the chair. The lecturer said that the principal function of decorators was to apply ornament artistically, art being not so much imitation as expression and application, not forgetting that inappropriate enrichment was not ornament. The type of building limited the style or ornament, therefore the ornament had to be suitable for its purpose. Certain buildings for certain purposes left the decorator a free hand in his selection, but he did not propose, said the lecturer, to discuss the more generally accepted treatments, but rather touch upon some of the less generally utilised ideas which had interesting possibilities for those able to use them.

The intention he had that evening was to take several situations which come to all decorators and try to see if the study of these can be helpful, or perhaps may suggest something which may lead to an endeavour to try out something off the generally accepted procedure. For consideration he would take a very varied, but limited, selection of typical work, which all handled: the church, the school, the dance hall, the picture-house, and the smoke room, and consider the idea in the mind of decorator and his execution of the work.

We were usually confronted in the early stages of our work with, it might be, an architectural drawing, or a request to visit the fabric proposed to be decorated. Immediately we gathered from a short study of our subject the first essential, namely, the style of architecture.

For ecclesiastical decoration no theme appeared to be more suitable than that of the heavens. The "Zodiac" was a subject full of splendid possibilities in the hands of the sympathetic decorator. In one building in Florence he was particularly struck by the beautiful decorative effect of the treatment of the Zodiac. Not only was the theme cleverly handled on the roof, but it also supplied the inspiration for the marble designs for the floors.

In the setting out of this scheme of decoration, it was essential that the twelve constellations, or Zodiac signs, followed the proper order, the Zodiac being an imaginary belt in the heavens, containing the twelve constellations, called signs of the Zodiac or the Circle of Animals.

There was a rhyme which enabled one to recollect the proper order:—

"The Ram, the Bull, the Heavenly Twins,
And next the Crab and Lion, shines
The Virgin and the Scales,
The Scorpion, Archer and the Goat,
The Man who bears the Watering Pot,
The Fish with glittering Tails."

In the execution of such a decorative scheme, there was ample scope for the decorator's abilities and a most interesting subject it was. It gave good opportunity for clever draughtsmanship, harmonious colouring, and for roof decoration of church buildings it merited much consideration.

Following on the same strain, another theme which might be very well more utilised for church decoration, and which was very seldom seen, was the "Te Deum." In the first place the letters were of a Gothic nature, phrased and joined together. It was not there to be read unless one liked to read it, but it was quite legible and artistically treated, the draughtsmanship—where the spacing did not exactly suit the panel—being a treatment of the vine, making an harmonious whole and forming a complete ceiling decoration comprising the whole of the "Te Deum."

In the pursuit of business in its many branches, the decorator naturally found himself confronted with all types of buildings, and in these modern days he was sure to be called upon for some suggestion for the decoration of a dance hall or a picture house. In this sphere, again, all were conversant with the many forms which decoration was taking, such as pictorial wall-panels, dancing figures, Italian gardens and landscapes, sea views, Spanish subjects, and ship's cabin, supper rooms, etc.

For the dance hall, a most original decoration had as its theme under-sea life and conditions. Here the decorator's idea had been to make it appear that the dancing was taking place under the sea, creating the illusion of coolness. There was, first of all an undulating effect, as of waves. The walls were treated with plaster and there were caves, rocks, and undersea growths of all kinds in beautiful form and colour. The ceiling was treated to look as if it were the inside of a mother-of-pearl shell, cleverly assisted by concealed lighting, with splendid results. To add to the illusion, a wave effect was obtained by countless silver threads suspended overhead and lighting effects in the form of fish, of various shapes and sizes. The lighting was switched off and on and gave a very realistic touch to the whole scheme, and with the use of the recent forms of scientific lighting, what was clever decorative work was much enhanced.

Then there was the modern picture house. The lecturer referred to the new "atmospheric" type of decorative work. It was, he said, a clever and new treatment of an old subject. There the decorator had plenty of scope to show his ability in the handling of the many opportunities that arise in work of this type. In our own country there were, so far as he knew, only two theatres treated in the "atmospheric" style. One represented a Spanish street. There were in London some of the painted atmospheric treatments, but the real American scheme was to build from inside the house itself, real houses, to make it look as if the public were sitting in the middle of a street in the open. Lighting came not from the roof, but from the drawn blinds or open doorways or balcony lamps of the houses. The effect was really very good indeed.

Some of the American treatments were really well worth attention and well worth experimenting with. About two or three feet was all the projection required. It was in work such as this that a consulting decorator could be very helpful to an architect. In fact, he thought, that the more decorators could show how helpful they can be to architects in carrying out their ideas, the more business they would have.

Some time ago, said the lecturer, during one of the Institute's educational tours in Vienna, some of the members were shown over a large new technical college. They were taken over it by the joint architects, and it was full of clever ideas from beginning to end. A theme simple in its nature and execution was carried out there. The college, a very large and up-to-date building, with many floors, took the subject of the various "numbers" of the floors for its decorative theme. In England we were more accustomed to treat the lower levels of our buildings in a darker treatment, gradually drawing towards a lighter scheme in the upper sections. In this particular place the colour scheme was reversed, and on the Cupola was very strong and dark colour, gradually shading down to a light finish on the ground floor, all blended shades of *one* colour. On each floor was the number of the floor. For example, the fifth floor had as its subject the number five, even to dividing bands and lines, five of these in various colours and breadths, and so on. The lockers in the corridors and the balusters were arranged in clusters of five, and so on. It was marvellous how it all worked out.

Turning now to buildings of another kind, say, one for Masonic purposes, it was quite natural that the decorator should look for a decorative theme to the use of Masonic symbols. It was surprising to what a limited extent that was used for the enrichment of interior surfaces.

There were, however, many pitfalls in such work. The symbols for the rising and the setting sun might be taken as an example. There were special positions for these. A decorator might go ahead and afterwards find that he should have left more space between two symbols than between two others. In this sort of work, he would advise, said the lecturer, to be very careful and get the data correctly. There was always the odd man about here and there who knew what was not just right.

Tobacco was another subject or theme that had influenced the decorator. In a large commercial establishment a room of generous proportions and pleasing design was to be set apart as a smoking room, and the decorator set his ideas to work to see what could be made of this subject. There was a large panel at each end with three semi-circular panels at each side. The panels at each end of the room received the principal treatment. At one end was portrayed the landing of Sir Francis Drake among foreign folk and finding them smoking. The panel at the other end portrayed the "Goddess of Nicotine" wreathed in smoke, supported on both sides by men of all nationalities, who used the fragrant weed. The side panels represented the various countries from which tobacco comes and how it was brought to the various trading places. The treatment was carried through in Gesso work, finished in strong colours. A suitable supplementary colour scheme tied the whole together.

Discussion.

The President, in initiating the discussion, said that one of the greatest benefits to members of the Institute had been the vast amount that they could learn from each other. The decorator should know his job and know it thoroughly; he should know something about architecture, and much more about decoration than the architect, who had all sorts of things to study besides decorative architecture.

Mr. C. A. Hindley said that a thing well worth comment and reflection was the idea of using the lettering of proper character in the decoration of ceilings and possibly walls of churches. The lecturer had referred to the whole of the "Te Deum" being used, and he thought that was a very fine theme.

The Bodleian Library.

In Congregation at Oxford, on March 12, a decree was passed *nemine contradicente* authorising the Curators of the University Chest to receive donations towards the cost of a scheme providing for the future development of the Bodleian Library. The scheme involves the building of a repository outside Oxford in which little-wanted printed matter will be housed, and the erection on the north side of Broad-street of a dignified building to be connected with the Bodleian by a subway, which would afford space for special libraries and rooms for special instructional and other purposes.

Lord Hambleden: Proposed Memorial in Lincoln's Inn.

Permission has been granted by the London County Council to the erection in Lincoln's Inn Fields of a memorial to the late Lord Hambleden. Designed by Sir Edwin Lutyens, R.A., F.R.I.B.A., it is in the form of a piece of Portland stone with a seat at its base and a portrait bust of Lord Hambleden set in a niche. The sculptor is Mr. Arthur G. Walker. It is proposed to erect the memorial about 70 ft. to the east of the central northern entrance to the garden, about 100 ft. from the Margaret MacDonald Memorial.

THE CARPENTER'S CRAFT

The fourth of the series of six lectures on the building crafts, under the heading "Carpentry," was delivered recently by Mr. W. H. Ansell, F.R.I.B.A. (President of the Architectural Association at the Polytechnic, Chiswick). The type of roof in England, said the lecturer, varied in different localities. Hammer-beam roofs were to be found mainly in East Anglia, trussed rafter roofs in Kent and Sussex, and wagon-shaped roofs in the West Country. The earliest roofs had generally tie-beams connecting the plates, and all the rafters framed together to show below five canted sides, as at Old Shoreham Church, or St. Mary's Hospital, Chichester. Another reason for the excellence of English carpentry had been the excellence of English timber, and the abundance of English forests, now so depleted. Certainly there were few finer instances of the influence of material on craftsmanship than the form and construction of the roofs of the great churches of East Anglia, and particularly in Norfolk and Suffolk. On the Continent the builders vaulted their churches wherever they went. In mediæval times the carpenter was nearly as important a craftsman as the mason, and when the woodworking skill grew so great the mason had to provide certain things for the woodworker.

The earliest timber building in England was that of the church at Greensted, near Chipping Ongar, Essex. It was the one building in England now standing which had the walls of the nave composed of the trunks of split oak trees of very ancient date. The walls were formed of split trunks placed upright, with the curved side outwards. In olden days the timber hewers of the forests set considerable store on oaks which had a natural bend or twist; such elbowed timber was useful for roofing, and also for the ribs of ships. Later on, building in England, particularly domestic building, was all timber.

The simplest form of roof, and the one that was used for a long time, in churches particularly, was the trussed rafter roof. Just as in masonry the barrel vault was the early form of vault which needed an abutment the whole length of the building, so the trussed rafter roof brought the weight and stress of the roof down to the hollow wall. The main portions of the roof framing were termed trusses or principals; they were placed together at regular intervals, and in cases of early open roofs were sometimes rendered more or less ornamental.

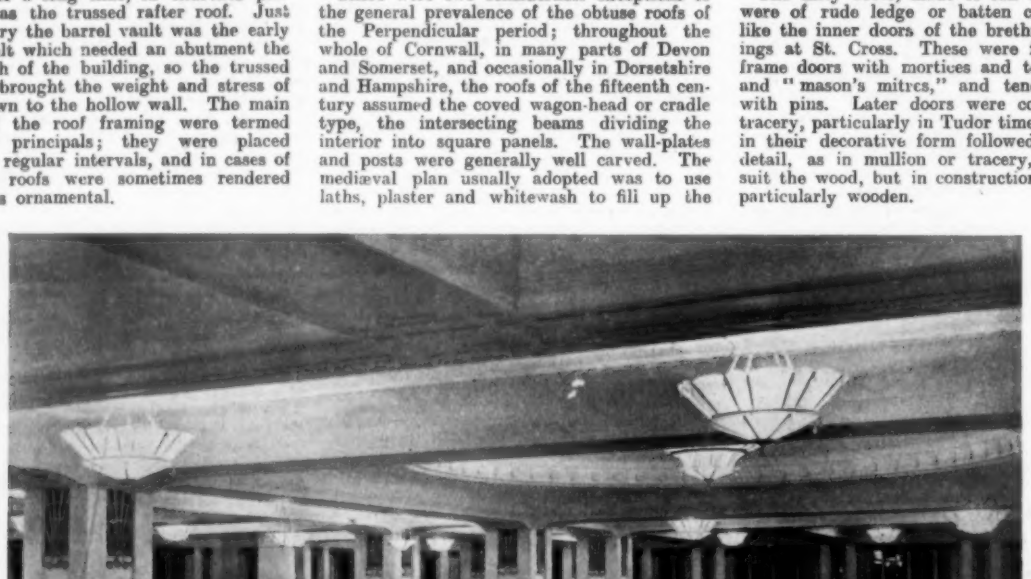
With the Early English period came a change; the carpenter found it necessary to raise steeper roofs over the pointed vaultings of the greater churches, and the framings were of lighter scantling. By degrees the shapeliness and beauty of open buildings grew upon their constructors' imagination as they came to roof in the unvaulted churches. The thirteenth-century open roofs were generally of high pitch and acutely pointed, and it was only occasionally that tie-beams were used. Towards the close of the thirteenth, and at the dawn of the fourteenth century, the custom came in of roofs of somewhat lower pitch, with arched braces below the moulded tie-beams. Roofs of distinctly Decorated fourteenth-century character were not numerous; one of exceptional interest was that of Starson, Norfolk, with arched braces and moulded principals. Trotton, Sussex, had a very wide span, with arched principals, purlins, and wind-braces. In the later years of the fourteenth century, and on to the close of the Gothic period, there came about a considerable change in the roofing of churches. In the large majority of cases the slope or pitch of the roof was considerably lowered, so that the form became more obtuse, and sometimes approached to actual flatness. The roofs of this style were supported by horizontal tie-beams resting directly on the wall-plates, and supported below by comparatively small spandrels in place of the curved braces of earlier design; the actual roof was often divided into panel work of intersecting timbers. One of the simplest forms of Perpendicular roof was formed by the use of king posts from the centre of the beams. King posts were an earlier development than queen posts, and were not introduced to keep the tie-beam from sagging, but to hold up the longitudinal ridge beam. Then end braces were put up under the tie-beam and tenoned into it and into an upright wall-piece resting on a corbel lower down the wall.

There were two considerable exceptions to the general prevalence of the obtuse roofs of the Perpendicular period; throughout the whole of Cornwall, in many parts of Devon and Somerset, and occasionally in Dorsetshire and Hampshire, the roofs of the fifteenth century assumed the coved wagon-head or cradle type, the intersecting beams dividing the interior into square panels. The wall-plates and posts were generally well carved. The mediæval plan usually adopted was to use laths, plaster and whitewash to fill up the panels, thus considerably lightening those unclerestoried buildings and showing up the beauties of the carving. In the better churches, particularly in the chancels, it was customary to have small full-length figures of angels against the wall-plates, placed at the springing of the braces. The second variation from the low-pitched tie-beam roof was the form known as the hammer-beam, essentially fifteenth-century, though one or two instances were just at the close of the fourteenth century. The hammer-beam was a projection from the wall-plate at right angles, used to strengthen the roof framing and to diminish the lateral pressure on the walls. They projected sometimes as much as five or six feet opposite to each other, until they almost represented a tie-beam with the centre cut out.

The hammer-beam roof offered special facilities for ornamental treatment, and frequently terminated in angels with outspread wings. These beautiful roofs, most exquisite when fully coloured, seemed almost ready to be lifted heavenward by the angelic host carved on every vantage point, especially in those of the double hammer beam roof. Such roofs, as far as churches were concerned, were almost entirely confined to East Anglia. Two of the most glorious instances occurred at Knapton, Norfolk, and Woolpit, Suffolk. The church at Needham Market was another handsome example on an exceptional plan.

A magnificent example of the hammer-beam roof was to be found in Westminster Hall, which was built as a banqueting hall by William Rufus in 1097. Until the era of steel, this was amongst the largest covered areas without pillars in the world. The present roof of Westminster Hall, built about 1396 or 1397 by Richard II, had a 68-ft. span. It was a great projection of hammer-beams, great arched ribs acting as supports to the collar-beam, and the king- and queen-post trussing above. The angels at the end of the hammer-beams carried shields with the arms of England and France.

The early doors, made of oak or chestnut, were of rude ledge or batten construction, like the inner doors of the brethren's dwellings at St. Cross. These were followed by frame doors with mortices and tenon joints, and "mason's mitres," and tenons secured with pins. Later doors were covered with tracery, particularly in Tudor times. Porches in their decorative form followed stonework detail, as in mullion or tracery, altered to suit the wood, but in construction they were particularly wooden.



Bournemouth Pavilion: Dance Hall.

Messrs. Home & Knight, AA.R.I.B.A., Architects.

TOWN PLANNING INSTITUTE

Railways and Town Planning.

Mr. Barry Parker took the chair on March 8, at Caxton House, Westminster, at an ordinary meeting of this Institute, when a paper prepared by Mr. Ashton Davies, general superintendent (Passenger Commercial), L.M. and S. Railway, on "Railways in Relation to Town Planning," was read in the absence of Mr. Davies through illness, by Mr. C. Johnstone.

Mr. Ashton Davies held that when local authorities were drawing up any schemes of town-planning to include housing and recreation grounds for the people in their respective districts, one of the factors they should keep prominently in mind was whether or not there were adequate railway facilities for the transport of these people to and from their homes and places of business or recreation, and, if not, whether it would be possible to arrange for such facilities being provided by any of the local railway companies. When housing schemes were under consideration by local authorities these schemes had, by force of circumstances, to have their location at the outskirts of the town, and there were very few towns in this country which had not railways running through their outskirts, and provided suitable land could be obtained in the neighbourhood of these railways, it seemed to him the local authorities ought to take steps to see that any extensions lay in that direction rather than in a direction where easy access could not be obtained to a railway. It might be said that a tramcar or road motor service would equally as well meet the requirements of housing extensions as the railway, and whilst he did not wish to detract from the usefulness of either of these modes of conveyance, he would point out that they were limited both in regard to capacity and speed, and whilst they might be suitable for dealing with occasional or small traffic for short distances, say up to 4 miles, the railways were better able to cater for bulk travel.

The railway companies had been one of the most potent factors in the development of the trade of the country, and were continually bringing before the industrial concerns of these islands the advantages to be derived by fixing on sites for factories and other works in the vicinity of a railway. Thousands of firms had realised these advantages, and when trade began to improve it was expected thousands more would also similarly appreciate them. Adequate and cheap transport was a most vital factor in the success of any commercial undertaking, and by having a direct connection by private siding right into the heart of a factory or works this transport could be secured. It was, therefore, important from the point of view of the industrial prosperity of a town that when sites were allocated for industrial purposes they should, as far as possible, be in close proximity to a railway, and in such a position as to admit conveniently of private sidings being laid down in the event of their being desired. The terms in regard to the provision of such sidings were the subject of agreement between the firm concerned and the railway company, and the large number of such sidings which were in existence went to show that the conditions imposed by the latter were not unreasonable. In connection with private sidings the railway companies, inter alia, granted private siding rates, and arranged for traffic being placed in and taken from the siding at times mutually suitable to themselves and the firm. The usefulness of such an arrangement would readily be appreciated, allowing as it did of direct transit by railway to and from the works, and saving double handling by having to load into a road vehicle for conveyance to or from a railway station. Many would say the same result would be obtained by loading direct into a road vehicle for conveyance to destination, but, generally speaking, this could only be done for comparatively short distances and for small loads, and certainly traffic could not be handled in this way to any large extent in the same way as it could by railway. It was not possible, however, for every firm to have direct access to the railway by means of private siding, but there again it was most important to the successful carrying on of their business that firms which had not that accommodation should have easy access to the railway, and, when sites for building purposes were being selected, care should be taken to see that the occupation of such sites would not in any way interfere with the roads of communication with the railway station nor restrict any reasonable development of the railway service in the district. Railways were the principal carriers of traffic in this country, and would be so for many years to come, and it would be against the business interests of any community to allow any building scheme to be laid down which would retard the flow of traffic to and from that means of transport. His remarks, whilst primarily applied to goods traffic, applied with equal force to passenger traffic, as obviously industrial areas, in addition to those actually engaged locally in industry, had also a considerable interest in the transport of customers to and from these areas, and here again the railways, as the main transport concerns of the country, played a big part, and the importance of good and easy approaches to railway stations should obtain prominence in all town-planning schemes.

The need for a railway service for workers in these centres was also one of great importance which should not be lost sight of by those responsible for fixing sites for works. The flow of passengers for industrial purposes was not always into the town, but in many cases—particularly so in the case of large works—it was from the town to the outskirts, and where thousands of such workers had to be transported, it would be admitted a convenient railway station or special works platform was the most suitable means of conveyance, two trains being able to convey as many passengers as 60 motor vehicles. The importance of the conveyance of workers by railways had always been kept to the forefront in Parliament and other places, and he would not like town-planning experts to forget what railway companies could do in this respect, nor to overlook the facilities they gave for the conveyance of workers when sites were being allocated in industrial areas.

Whilst the railways were the principal purveyors of internal transport, it was most essential to the proper working of their business and, incidentally, the business of the country generally, that they should work in conjunction with other forms of transport such as water, road and air, and although it might not at all times appear so, it would be found that this was part of their settled policy. If they took rail and water combined transport, they found the greatest examples of collaboration in this respect at their seaport towns where the railway companies had direct connections to all the great docks, and arranged trains both for passenger and goods to suit the sailings to and from the docks, and when town-planning schemes were under consideration, care should be taken to see that nothing was done to affect adversely these connections. In fact, everything possible should be done to improve them.

So far as collaboration between railways and air transport was concerned, this was a feature which had not yet arisen to any great extent, but various towns were at the moment considering the laying out of parks suitable for the landing of aeroplanes, and in doing so he suggested it was essential regard should be had to the further conveyance of the passengers and goods which might be conveyed by air. The traffic conveyed by these machines might not be in every case local to the town served by the machines, and further journeys to and from the town might be required, and the more convenient these parks were to the railway stations the better would such traffic be catered for. Obviously, every town and village in the country could not hope to have a direct service by air, and whilst they could not yet say to what extent internal air services would function, there was no doubt some scheme of co-operation between air and railway would require to be introduced in the same way as existed in connection with the Continental air services for both goods and passengers. It might be that services would require to fit in, and that schemes for the through booking of passengers and goods would require to be considered, and, obviously, if co-operation in this way was either desirable or necessary, such co-operation would be greatly facilitated by convenient communication between the railway and the air station.

In connection with town-planning schemes, it was most desirable from the railway point of view that their requirements be considered in the matter of their having at some future date to enlarge or widen their present lines on account of the development of traffic, or with the object of working more expeditiously their existing traffic, and where it was thought any ground would be useful from this aspect, care should be taken to see that such ground was not allocated for other purposes, as the stultification of the development of railway services was bound to have an adverse effect on the community, and retard the prosperity of the town concerned. The growth and development of a town or district naturally placed a greater tax on railway conveyance, and it would be appreciated allowances in this respect required to be made if the transport facilities were to advance at the same rate as the district they served. Similarly, in laying down any scheme for the extension of a town, regard should also be had as to whether or not any new railway routes would be of advantage in the particular area affected, and, if so, steps should be taken to see that no buildings or other schemes were provided which would prevent the development of such routes. In the past, cases had occurred where the exercise of a little foresight in this respect would have saved enormous expense in tunnelling and other operations to provide the necessary railway facilities, or have resulted in such facilities being provided much quicker than they actually were. Where it was anticipated districts would develop in course of time, any provision for railways and railway stations should be ample, as lack of accommodation tended to hamper railway operation.

Discussion.

Dr. Raymond Unwin said that motor-car and air developments were introducing new factors and conditions and new conveniences in transport, but it was clear to town-planners that they were introducing new complications and very serious nuisances to the ordinary inhabitants of a district. They regretted that so much heavy traffic was diverted from the railways, and would like to see it go back, but they had to face facts, and enlightened commercial organisations said that it paid them to send goods by road. He would like to know if the railway companies had an organised general staff really studying questions in advance, for if they were to regain their traffic a great deal of thinking, courage and originality would have to be developed.

Mr. H. Stewart suggested that the railway companies could help town-planners by

showing how sidings could be best laid out. In schemes he had had to do with, he had found the railways ready to assist by putting forward their views at an early stage.

Mr. D. Barclay Niven pointed out that the existence of the railways had in many cases prevented proper town-planning. He referred to the existence of about 600 railway stations in London, many of which were unnecessary, and emphasised the bad effect the elevated railways had had on the development of South London. In the proximity of the miles of arches were also miles of slums. In the engineers' scheme for Charing Cross several miles of elevated railway were shown.

Mr. F. L. Thompson said that the co-operation of the railway companies in town-planning schemes was generally confined to asking to have all their property excluded. Yet he thought the companies had something to gain from the reservation of land close to their lines for industrial purposes. The difficulty was that the zoning was not really effective, as any buildings could be erected in an industrial area. He suggested that possibly railway companies might be prepared to pay some compensation to secure the retention of land in an industrial area till it was required for industrial purposes.

Mr. W. Harding Thompson said that, as regional and town-planners, they had to be clear whether they desired railway facilities in certain parts of the country. In the 19th century the railway companies put down stations at close intervals at the instance of land developers, and totally inadequate attempts were made to provide decent stations. In few places could they point to a definite contribution to the amenities of a town in railway architecture, and he thought they should make a definite stand for a high standard of architecture, not only in the case of big terminals, but also of the small country stations.

Mr. Johnstone briefly replied.

THE POWERS OF THE ARCHITECT—IV.

By W. T. CRESWELL, Barrister-at-Law, Hon. A.R.I.B.A., Associate (late Fellow), Surveyors' Institution.

Ratification.

WHERE a person performs any act or enters into any transaction professedly on behalf of another person, the subsequent ratification by the latter of such act or transaction is equivalent to his having originally authorised it himself, and the consequences of ratification in terms of his own liability are generally the same as if he had done so. The doctrine of ratification applies not only where a duly authorised agent exceeds his authority, but also where the person doing the act or entering into the transaction has no authority to act for the other at all.

The ratification of an act or transaction fixing liability on the principal must have been shown or made within a reasonable time after the act, and in any case the reasonable time cannot extend beyond the date fixed for the contract work to commence.

Once an unauthorised act or transaction is ratified, the ratification covers all lawful acts of the agent from the time of the act or transaction. But ratification can only be applied to voidable acts or transactions which in themselves are of a lawful nature and never to those which by their inception are void. A forged signature, for instance, cannot be ratified, nor can a corporation or incorporated company bind itself by the ratification of any contract or act which is *ultra vires;* even with the unanimous assent of its members; because such a contract or act is one which it would have had no power to authorise if originally put before it, and it is therefore (so far as concerns the corporation or company) absolutely void.

The Principal Must Exist.

If an agent performs any act or transaction in such guise, it is necessary, for the purposes of ratification, that the principal shall be an actually existing person, though he need not necessarily be known to the agent. It must be done for a particular person when the act or transaction takes place. No one can ratify that which purports to have been done for somebody else. An incorporated company, for instance, cannot ratify a contract which was entered into before its incorporation. The only course, if it wishes to confirm any such act or transaction, is to make a new contract on the same terms. Again, an insurance of a property may be effected generally on behalf of any person interested in the property insured; and such person may subsequently ratify the insurance to the extent of his interest, unless it is established that, in fact, the person claiming the benefit was not such a person as those who effected the policy had in contemplation when taking out the insurance. That is to say, an act or transaction can only be ratified by the person on whose behalf it was done or entered into. A contract, therefore, made by a person intending to contract on behalf of another, but without the authority of the latter, cannot be ratified by that other so as to render him able to sue, or liable to be sued, on the contract, if the person who actually made the contract did not *at the time of making it* state that he was acting as an agent only. (See Keighley, Maxsted & Co., *v.* Durant (1901), A.C. 240.)

Ratification may be Expressed or Implied.

The ratification of an act or transaction may be expressed or implied. It is implied whenever the conduct of the person, in whose name or on whose behalf the act or transaction is done or entered into, is such as to show that he intends to adopt or recognise such act or transaction in whole or in part; for instance, when an architect has exceeded his authority, ratification of his act may be implied from the mere silence or acquiescence of his employer; and the adoption of part of a transaction operates as a ratification of the whole. It is not necessary that the ratification of all acts shall be in writing; but the execution of a deed can only be ratified by a deed. It must be remembered that ratification of any one act does not of itself set up or give any *new* authority to the agent whose act is ratified in respect to future acts.

An architect who accepts a tender without the employer's authority to do so cannot bind his employer by that acceptance; but if the employer subsequently ratifies such an authorised acceptance, the parties to the contract (*i.e.*, the employer and the contractor) are bound from the date of the acceptance of the tender by the architect.

Unauthorised Orders.

Most building contracts, in defining the powers of the architect, empower him to vary the contract; but if the architect orders any *unauthorised* variations and the employer refuses to ratify them, or adopt them, he (the employer) can sue the contractor for non-performance of the contract on the grounds that the architect has no power to bind his employer by any deviation from the plans (see Cooper *v.* Langdon (1841), 9 M. & W. 60).

A contractor, before he can recover under orders issued by an architect, must show that it was within the scope of the architect's authority to order them.

MODERN BUILDING CONSTRUCTION

Structural Steelwork at Imperial Chemical House.

The general design of the building provided for a large amount of "double-bank" construction—*i.e.*, rooms opening on either side of a central corridor. The ceiling of this corridor formed a duct used in connection with ventilation of the building and other engineering services. This duct governed the design of the constructional steelwork as deep beams spanning the whole building from wall to wall could be used. Stanchions were provided in all corridor walls, and corridors were spanned by light transverse beams only. All external and area wall stanchions were spaced at 12 ft. centres. This close spacing suited architectural requirements, and proved economical both as regards steelwork and in giving a good distribution of load on to foundations. Internal stanchions were spaced at 24 ft. centres with deep longitudinal main beams between them, carrying the transverse secondary beams at the normal spacing of 12 ft. These longitudinal beams formed the side walls of the corridor ducts. This arrangement of steelwork is carried up to sixth floor level (with a set back of the front wall above the fifth floor) in the front blocks, and continues to the roof of the mansard slope in the back block.

At fifth and sixth floor levels on the front blocks a system of heavy compound girders carries the upper stanchions. The steelwork above the fifth floor is of the stiff jointed type with a large central span. The height of both the sixth and eighth floors is 21 ft.

The pitched roof of the front blocks is primarily carried by built-up arched roof ribs, the undersides of which carry the large central barrel ceiling over the main refectories. The ribs are carried by and stiffly connected to the stanchions, and are designed partly as arches and partly as girders. At the front the ribs are connected to the ends of the eighth floor girders over the colonnades by means of stiff bent rafters, which form a framework for a low barrel ceiling along the front of the main refectories.

The purlins and rafters of the roof are of rolled steel joists, and the apex framing carries steel tee purlins suitably spaced for the support of the heavy load of the stone roof. Portland stone roof slabs were arranged to interlock with pre-cast reinforced concrete blocks.

Four transverse systems of wind bracing are incorporated in the building from the basement to the sixth floor level. These are of the K type. In order to distribute the wind stress as much as possible, the bracing systems rise from foundations to the second floor level between the front pairs of stanchions and continue to the sixth floor level between the back pairs of stanchions.

Adjoining Westminster Power Station heavy steel cantilevers were used to transmit the stanchion loads to the foundations. The wall footings of Cromwell House and King's Building projected about 2 ft. within the boundary of the site, rendering it necessary to carry the wall stanchions on heavy cantilever girders at ground floor level. The heaviest girders used were over 9 ft. deep from flange to flange. Along the Transport House boundary the stanchions supported by the caissons were about 10 ft. from the outer wall, and the superstructure here was also carried on heavy steel cantilevers.

The steelwork was erected very rapidly. The first stanchions were raised at the end of April, 1927, as soon as adequate areas of foundations were available, and in six weeks some of the sixth floor joists were in position. On this skeleton tower a 5 ton steam crane was erected, which operated in conjunction with other cranes and derricks in the erection of further sections of steelwork. The whole of the structural steelwork, amounting to 6,550 tons, was of British manufacture.

THE WEEK IN PARLIAMENT

Westminster, *Wednesday*.

Slum Clearance Schemes.

Mr. Chamberlain informed Mr. T. Williams that, by the end of 1928, nine of the slum clearance schemes which had been approved since January, 1925, had been completed. Re-housing accommodation for 2,345 persons was provided in connection with these schemes. In addition, in the case of 15 schemes, the houses necessary for the accommodation of the 4,649 persons to be displaced had already been erected, although the whole of the demolition of the unhealthy area had not been completed.

The Unemployed.

Mr. Betterton, Parliamentary Secretary to the Ministry of Labour, informed Mr. Day that at February 25, 1929, there were 199,330 insured persons classified as belonging to the building industry recorded as unemployed in Great Britain, including 165,747 wholly unemployed and 35,583 temporarily stopped.

In answer to Mr. Harris, Mr. Betterton said the number of insured persons classified as belonging to the building industry recorded as unemployed in England and Wales last year and this was :—

Date.	Wholly unemployed.	Temporarily stopped.	Total.
Feb. 25, 1929...	147,695	32,208	179,903
Feb. 20, 1928...	104,690	3,275	107,965

Replying to Sir R. Gower, Mr. Betterton said at February 25, 1929, there were 1,105 insured men, aged 18 to 64, classified as belonging to the slate quarrying and mining industry recorded as unemployed in Great Britain. Of this number, 654 were wholly unemployed and 451 temporarily stopped. At the same date there were 2,409 insured persons, aged 16 to 64 inclusive, classified as belonging to cement, lime, and whiting manufacture recorded as unemployed in Great Britain. Of this number, 1,578 were wholly unemployed and 831 were temporarily stopped.

Foreign Slates.

Sir N. Grattan-Doyle asked the Minister of Health whether the use of foreign roofing slates disqualified houses for the subsidy?

Mr. Chamberlain said that the answer was in the negative. Section 10 of the Housing (Financial Provisions) Act, 1924, provided that, in approving proposals for the construction of houses, the Minister of Health should not impose any conditions which would prevent the materials required being purchased in the cheapest market at home or abroad. The Government had, however, urged local authorities to arrange that all contracts for or incidental to works carried out by them should, in the absence of special circumstances, be placed in this country.

Imported Materials.

Mr. H. G. Williams, Parliamentary Secretary to the Board of Trade, informed Sir W. de Frece that the following table showed the total declared value of the imports of builders' woodwork (window-frames, doors, etc.) retained in the United Kingdom during the years 1913-1928 :—

Year.	Declared value.
	£
1913	151,339
1919	219,135
1920	290,675
1921	400,221
1922	230,235
1923	371,988
1924	700,787
1925	1,080,524
1926	1,423,599
1927	1,585,928
1928	1,103,911

Notes.—The description of imports to which the figures given above for 1913 and 1919 related was "house frames, fittings and joiners' work." Prior to April 1, 1923, the above figures related to the trade of the British Isles as a whole. From that date they related to the trade of Great Britain and Northern Ireland. The figures for 1928 were provisional.

Answering Sir R. Gower, Mr. Williams stated that during the year ended January 31, 1929, the total imports of calcareous cement, for building and engineering purposes, consigned from foreign countries, amounted to 277,854 tons. In the same year the total imports of "slates for roofing," consigned from foreign countries, amounted to 44,720 tons.

Mr. H. Williams informed Mr. Purcell that the following table showed the total declared value of the imports into Great Britain and Northern Ireland of wood and timber and of manufactures of wood and timber, consigned from Russia, during each of the years 1924 to 1928 :—

Year.	Wood and Timber.	Manufacturers of Wood and Timber.
	£	£
1924	6,141,060	51,086
1925	5,756,658	103,370
1926	3,857,230	78,957
1927	6,470,932	136,675
1928	6,893,986	185,424

Note.—The figures for 1928 were provisional.

Commodore King gave Col. Woodcock the following information as to the imports of foreign roadstone into Great Britain and Northern Ireland :—

Unmanufactured granite other than setts and pavement kerbs and monumental and architectural objects :—

	Tons. 1926	Tons. 1927	Tons. 1928
Consigned from foreign countries	218,461	229,261	338,167

Note.—Roadstone is not a separate heading in the trade returns, but unmanufactured granite was believed to cover the larger portion of foreign imports of materials which are used for road making.

Quantities of minerals produced in 1926 and 1927 at quarries more than 20 ft. deep and used for purposes of road making and ballast :—

Mineral.	1926 Tons.	1927 Tons.
Igneous rock (granite, etc.)	7,707,706	7,994,258
Limestone	4,503,928	5,003,853
Sandstone	1,506,370	1,639,137
Gravel and Sand ...	601,427	814,188
Total ...	14,319,431	15,451,436

Notes.—1926 and 1927 were the only two years for which reasonably complete particulars were available.

It was not possible to give separate particulars for roadmaking only, but the quantity of ballast included in the figures for igneous rocks and sandstone was probably less than 1 per cent. of the total for those minerals.

Stonehenge.

Commander Southby asked the Under Secretary of State for the Home Department, as representing the First Commissioner of Works, if he had any information regarding the proposed sale of land adjoining Stonehenge; and whether the amenities of this national memorial would be preserved.

Sir V. Henderson said that Commander Southby was no doubt referring to the effort which was being made through the National Trust to raise funds for the purchase of the land around Stonehenge. The First Commissioner, whose Department was very keenly interested in this project, was happy to be able to say that the appeal for subscriptions had so far met with a gratifying response, but there was still urgent need for more funds to complete the purchase before the end of March. The intention was, of course, to preserve the amenities of the monument for all time.

INQUIRY BUREAU

Cement Mortar and Efflorescence in Brickwork.

[Reply to "M.," March 15.]

Sir,—In support of your expert's opinion upon this subject, I should like to call attention to the fact that, if carefully examined, the efflorescence that shows on the face of certain brickwork in compo, the white deposit appears to be concentrated in the centres of the individual bricks in most instances and fading away somewhat towards the joints. Also, there are certain bricks which show this efflorescence far more strongly than others.

Observer.

Anti-syphonage Pipes.

[Reply to "Student," March 15.]

Sir,—Where two or more w.c.s discharge into a common soil pipe, it is necessary to fit anti-syphonage pipes to same, connected into the soil pipe above the level of the highest fitting. Otherwise there is a liability for the discharge of one flush to syphon out the water from the traps of the other fittings.

Plumbing.

Penalty Clause.

[Reply to "Builder," March 15.]

Sir,—It is true that a contractor cannot cite ordinarily bad seasonable weather as a cause for non-completion of a contract to time, but in such a winter as this, when work has had to be left standing for a fortnight or three weeks, I think a contractor has a very good reason for delay in some cases. Such matters have to be judged on their just merits.

Architect.

Sir,—Unless the employer himself has prevented the work proceeding, and so thrown the work to be done into the bad weather, then "Builder" cannot plead the recent bad weather as an excuse for delay, or, indeed, for any defects in the work to be performed by him under the contract. He must remember that the variableness of this climate is supposed to have been within his knowledge when making the contract. However, many building contracts nowadays give a power to the architect to grant an extension of time, so as to deal fairly with the contractor, where there is unavoidable delay, on his part, due to the weather, etc.

Penalty.

Sound-proofing.

[Reply to Mr. W. M. James, March 15.]

Sir,—The Department of Building Research will give your correspondent the name of a proprietary material composed of the seaweed he mentions. It is very efficient, and is also useful for insulation against heat and cold.

Insulator.

Mastic for Pointing.

Sir,—In the West Riding of Yorkshire, some 25 years ago (if I remember aright), we used a kind of mastic for pointing the internal corners between wood window-frames and brickwork. I think the same kind of a mastic was also used for steeple and chimney repointing. The mastic I have in mind was, I think, obtained from colourmen or paint manufacturers, in a kind of sand or powder form, this sand or powder being mixed with linseed oil to the consistency of putty and applied to the corner or joint with a pointing tool or trowel. The mastic was of a reddish colour and would adhere to wood, stone, bricks, etc. Any information on this subject would be appreciated.

Mastic.

Books on Professional Practice.

Sir,—I should be glad to know what books would help me on the subject of "Professional Practice" for the Final Examination of the R.I.B.A.

Red Rose.

THE BUILDING TRADE

THE MAKING OF A MODERN BUILDING

A Bossom Gift Lecture, "The Making of a Modern Building," was delivered under the auspices of the Chadwick Trustees, by Mr. George Mowlem Burt, F.I.O.B., at the Royal Society of Arts, John-street, Adelphi, W.C.2, on Monday, March 11, under the chairmanship of Sir George W. Humphreys, K.B.E., M.Inst.C.E.

The subject of the lecture was Imperial Chemical House, Millbank, Sir Frank Baines and Mr. Alfred Cox, FF.R.I.B.A., architects (illustrated in our issue for February 22), and the lecturer said he proposed to take that building as an example of a "Modern Building," and to deal with some of the problems it presented. Normally a building of that type would be "in the making" not less than four years, or, including the preliminary negotiating and designing stage, five years or more. For the building as at first contemplated, it was decided to tighten up this period and aim at two years. Half-way through an extension was added equal to about two-thirds of the original proposal, a large part of which was wanted for occupation in the original time of two years, leaving only one year for this part of the work. It was a *sine qua non* that this short time should not be attained at the expense of workmanship, and in fact it was not.

When the start was made there were no working drawings as such in existence. Only a sketch was available, and the building had therefore not only to be built, but designed and built in the two years. The contract was not prime cost (a most pernicious type of contract), it was based on a competitive schedule of prices, and his firm, as contractors, had to face the problem not only of completing in less than half the time usually allowed, but of carrying out the work within the definite economic limits of the schedule.

Included under the head "site" was the clearing and actual preparation to receive the building. Access was the first consideration, for bound up with this was not only the demolition of any buildings there might be, but the removal of the earth, etc., to give room for the basement and foundations, and ultimately delivery of all that went to make the finished building. This particular site was fairly clear to street level and for general access could be classed as good, but not ideal, for at three points it abutted on to other buildings below the foundations of which they had to go. In addition to some five or six thousand tons of old foundations which had to be either blasted out or broken by pneumatic tools, right through the length of the site ran an old sewer, 7 ft. in diameter, which had to be broken out and filled in. There were other difficulties due to an old stream bed crossing the site and, with the proximity of the River Thames, the water level in the foundations fluctuated with the tide. Actually, some 65,000 tons of earth of various sorts was removed. This was done in two bites—the main building and the extension—but in some weeks 6,000 tons was shifted. This meant working day and night for months. This comparatively large output was only attained by very careful arrangement for the necessary lorry traffic, by which the excavated material was taken away. The rate of excavation was literally governed by the facilities for carting away. The major portion of the main building had foundations carried on concrete piles driven right through the ballast into London clay. Over 1,300 of these piles were made and driven. About half of them were made of ordinary rapid-hardening Portland cement, but where special lengths were required, or piles had to be spliced, electric cement was used, and these were often driven within 48 hours of their manufacture. Where the site adjoined a building beside which it was unwise to drive piles, a concrete raft was constructed; and for a portion of the extension site an entirely novel form of foundation was evolved. To avoid the vibration and noise of piling, circular caissons formed of sections of cast-iron tube—similar to actual tube railway material—were sunk from road level into the ballast. The bottom was consolidated and the caisson then filled in with concrete to grillage level. After the stanchions were inserted, the half of the caisson next adjoining building was filled in solid with concrete to form a retaining wall, and the other half removed and the space given into the basement.

A large modern building of this type might well be likened to a small self-contained town. In addition to the structure itself—six million cubic feet—it contained all its essential services, from water supply fed by two artesian wells, to own telephone system. Every bit of the structure was carried by steelwork, even the outside walls being merely filling in between the steel joists. While the digging and foundations were in hand, the steelwork was being designed and made, so that as soon as the base was ready steel could be fixed. The building consisted of a basement, ground floor and seven floors above, and rose to a total height from the basement to roof-ridge of nearly 150 ft. Following the steelwork erection, floors were inserted as rapidly as possible up to the 5th floor level of the centre portion of the Millbank front (the section commenced first) and the structure was temporarily waterproofed. This enabled internal finishings to be started before the building was actually roofed in. The point aimed at here was to get all possible trades started at work on the site at the earliest possible moment.

With regard to the clothing-in of the steel framework, the lecturer said first the floors went in. In these were incorporated the heating panels, consisting of flat coils or grids of iron pipes which warmed the building. They were principally on the underside of the floors, really the ceilings. Floors throughout were of reinforced hollow tile construction, a type at once light, strong, and fire-resisting, and one that lent itself to rapid construction. Following the floors, the external walls were built—not from the bottom of the building as usual, but at several levels at the same time, the steelwork being specifically designed to allow of this. The bulk of the Portland stone was prepared ahead of the erection of the steelwork and stored. Similarly, while the steelwork was proceeding, the granite facing to the ground floor was being worked in the north of Scotland, to be erected later. The internal lighting courts were all faced with tiles and glazed faience; this material, too, was being made as the steel was being fixed, so that it would come along in time. Joinery also was started early, this being most essential if quality and workmanship were to go hand in hand with speed. Immediately the external walls were up—and sometimes before—the adjacent internal partitions were erected to form corridors and rooms, and the building then became ready for the finishing operations. Generally, the final finish to walls and ceilings was plaster, except on the sixth floor, where in most cases the apartments were panelled. Throughout the building, and particularly on the sixth floor, where exceptional steps were taken, the structure was artificially dried out, and this enabled woodwork to be fixed probably twelve months earlier than was usually deemed safe.

Having described the finishings and equipment of the building, the lecturer asked, how was all this work to be arranged and executed in a time less by one-half of that reckoned normal in the past? Ultimate completion speed really depended on three main factors—first, the organisation of labour, so that the men had space in which to work and were not crowded on each other; secondly, that the men had work available directly ahead, so that they could give what he had generally found them willing to give—their full output; and thirdly, that it was possible to get to them full supplies of the materials they required without any waiting on their part. All three factors were important, the third particularly so. The weight of the materials handled on to this job was over 100,000 tons; this was in addition to the 65,000 tons removed during excavation. While it might be simple to bring such a quantity of material up by lorry and dump it outside the building, once the skeleton was erected all materials must follow definite ordered paths in hoisting and conveying to the working points. Unloading facilities gave one limit and hoisting facilities another. The latter must be planned to occupy the absolute minimum of space in the building. Then the available market supplies and free labour in specific major trades all had to be considered in relation to the time limit. In some trades, particularly masons, plasterers, and bricklayers, the amount of available labour fluctuated, and even if such labour was available, it was frequently unsuited to the type of work being executed. To use a rough and ready illustration, a bricklayer who could do well on housing work never more than 20 ft. above ground, was not at all happy, nor was he efficient in quality and output, on heavier work at very different heights and requiring a different technique. In practice, therefore, one planned a sequence of operations for each type of finish, and aimed at making a start with each separate operation or trade at the earliest possible moment, bringing the strength of that group to its peak as rapidly as working area and supplies would allow. One must always aim, though, at seeing that gangs were not increased beyond the capacity of the job to give them full scope for their powers. It could not be too strongly stressed that merely crowding on labour and working long hours did not give speed. His firm aimed at giving each trade as long as possible in which to do its work and getting as many trades as possible at work as early as possible. They were determined that workmanship should not be sacrificed for speed, and by carefully organising the various processes, and, as he had previously stated, giving them as much time as possible for each operation, they were always in the position of being able to select their craftsmen, in spite of the shortage of free labour in the trades mentioned. Charts were prepared on these lines and not only prepared, but carefully worked to. From the "labour cost" standpoint, the matter of supplies was very important. To give a full return for its hire, labour must be fed with an adequate supply of materials. Supply must always be ahead of demand, so that the operative had full scope for his output; yet not so far ahead that the materials had to be handled more than the minimum time necessary to get them from transport to their final position as constituents of the building.

The architect's instructions compelled him to get the work going with the absolute minimum of information, instead of the maximum. This was due to his not being in possession of detailed information as to his client's requirements—much of this information was only obtained as the job progressed, and the effect had been felt all through on progress. Many quite exceptional steps were taken to overcome this, and with a large measure of success—but the cost was considerable. The planning of operations called attention to the development of the "specialist" during the last thirty years or

so. A generation ago a far larger proportion of the work was performed by men in the main contractor's direct employ. It was unfortunately becoming a practice in this country for the client or the architect to sublet two-thirds of the work without reference to the main contractor. This made any idea of a strict time limit, at any rate as interpreted in America, an absurdity. It was no good arbitrarily fixing a short time for completion and making the main contractor responsible for seeing that this time was adhered to, when he had no voice in the selection of, and, in practice, very little jurisdiction over, subsidiary contractors. On this contract, however, they were not asked to employ any sub-contractor or specialist until they had satisfied themselves that he could not only give the quality of work demanded, but would comply with their time requirements. It was very much to this concession that he attributed the fact that they were able to complete within their contract time. The whole field of supplies had also to be explored for the materials required by the main contractor himself. In this respect the architect's specific requirements as to materials would affect the position.

Having visualised what was required to secure the proposed result, and the negotiations having taken place with suppliers and sub-contractors, a table of operations should be compiled, giving the dates at which each operation or series of operations must commence at the site, the dates by which they must be completed, and their average and maximum output or rate of progress. Our American cousins dealt with this part of the work very thoroughly. It was, he believed, customary with them to detail the operations down to each day's work, and so to deal with each operation from the smallest to the largest. All this, too, was worked out before commencing the actual operations on the site. The total time taken in designing, negotiations and the planning of progress to dovetail in each separate operation was, he understood, usually equal to the time spent in carrying out the actual work. When, therefore, one read that a certain building had been erected in America in what seemed to be a very short space of time, one could safely double that period for the complete operations. Such a method only became possible if everything in the building from its inception was standardised to the utmost. In saying this, the lecturer said he did not mean in any way to belittle or find fault with American practice. It was, he considered, the right way to go to work. He mentioned it because one frequently heard the speed attained in American practice attributed to three factors: (1) better output on the part of the American operative. (He was convinced from what he saw when in America that this was not so. If it existed at all, it was because he had better opportunities.) (2) A lower standard of workmanship. (From what he had seen, he did not think the actual standard of workmanship was necessarily lower than ours, but it was certainly quite different; there was much more standardisation in the finishings of a building.) (3) Better organisation by the American contractor. (Here, again, he did not think the American contractor's organisation was necessarily better than ours, but it was certainly different. He thought the difference lay in this, that generally speaking the American building owner insisted on speed and himself prepared for it.)

In British practice, speed was usually never seriously considered. If the British building owner really wanted speed he could have it, without any loss in quality of work. But he must tell his architect what he wanted soon enough and not constantly change his mind; his architect must give the contractor drawings and details in good time, and the practice of sub-letting two-thirds of the contract without reference to the main contractor must be altered. There was no miracle about American speed; it could be obtained here without sacrificing workmanship or character of work, without longer hours or more tradesmen, but the building owner and his architect must change their methods. Briefly, one might say that whereas much American work bore the stamp of standardisation, the hall-mark of the majority of British work was still individuality — a hall-mark, he hoped, they would long retain. In the building under consideration, this was undoubtedly the case. Throughout the job everything down to the smallest detail had been specially designed and made. While this had added tremendously to the difficulty of meeting the time requirements, the result was abundantly justified in the production of a building which had its own character.

Summarising the essential requirements to enable a modern building to be produced in the shortest possible space of time, yet bearing in mind the British hall-mark of quality, the lecturer said, first, the instructions from the commencement must be clear and final. The client's mind as to his requirements must be made up and the architect's interpretation of them complete. Drawings and details must be issued well ahead of the progress of the work. The minimum of alteration was essential. Alterations interrupted and retarded the normal sequence of work and they adversely affected the morale of the workmen. The operations must be so planned and co-ordinated that each trade commenced on the site at the earliest possible date. There must be a first-class organisation working behind the job to ensure adequate supplies of plant, materials and prepared work, always available for the site labour. An adequate supply of labour with sufficient space and work ahead of it must also be available, so that the work might be continuous and the men able to work to their full capacity the whole of the time. This part depended largely on the site foreman and his organising ability.

At the conclusion of the lecture a film of the building operations at Imperial Chemical House was shown. This, the lecturer said, had been made with the help of Messrs. Dorman Long and Co., Ltd., by the British Instructional Films, Ltd.

A number of questions having been asked and answered, Mr. W. Addington Ellis, C.B.E. (a Chadwick Trustee) moved a vote of thanks to the lecturer, which was seconded by Mr. J. Murray (Secretary of the London Federation of Building Trade Operatives), who said he had been wondering whether it would not be a desirable thing for contractors to exhibit on the job the type of chart that had been referred to. This would enable the workmen who took a keen interest in the progress of the work to study it. He had worked on the Union Buildings erected in South Africa, and he knew that it was a distinct incentive to the workmen to have the drawings of the job exhibited as well as charts showing the actual progress made week by week.

The vote of thanks was carried with acclamation, and Mr. Burt briefly replied.

Employment in the Building Trade, February.

During February, says the *Ministry of Labour Gazette*, severe weather conditions caused abnormal unemployment among all classes of operatives except plumbers; the prolonged spell of frost during the latter part of the month resulted in the entire suspension of outdoor operations on many buildings throughout the country. As compared with February, 1928, employment was considerably worse in all areas. As regards individual occupations, employment declined with carpenters and was generally slack; it declined considerably with bricklayers, masons, slaters, plasterers and labourers, and was bad with these classes in the majority of districts. There was some improvement with painters, but employment continued bad on the whole; it was much better with plumbers and was reported as good at most centres. As compared with February, 1928, employment was much worse with most classes, but an improvement was recorded for plumbers.

THE TRAINING OF THE BUILDER

At the Northern Polytechnic, on Monday, March 11, Mr. T. P. Bennett, F.R.I.B.A., in the course of a lecture on this subject, said he intended to consider the training of the builder both from the educational point of view and in the light of his (the lecturer's) experience as a practising architect; and, moreover, it was essential to consider the point of view of the building owner, to whom a building operation was a form of investment.

Perhaps the question of organisation was the most important problem with which the builder was confronted, and certainly it was the most vital factor in the production of economic building. In these days, time was always exceedingly valuable, and from the point of view of ground rent, etc., a comparatively short period of time might represent a loss or gain of several hundreds of pounds to the building owner. It was also an important matter to the builder, whose overhead charges would almost invariably be relatively greater on a job which had been delayed than on one which had been carried on smoothly and inside schedule time. This question of time, or organisation, which it really was, must frequently represent the difference between profit and loss on a contract. The efficiency of the industry was very largely in the hands of foremen and others controlling building operations. Many things were essential: the intelligent anticipation of the progress of works, the ordering of material so that it might be delivered at the right moment without delaying the work through non-delivery or impeding operations by delivery long before it was actually needed. This orderly arrangement of progress involved as much as anything else a thorough understanding of the setting out of work. Too frequently were serious delays caused by inability to take dimensions for such items as fire-escape stairs, lift machinery, cast-iron drains, etc., at such a stage in the building operations as would allow the manufacturers to complete their work by the time the items were required.

The lecturer referred to the high degree of skill found among engineers, who were usually capable of taking dimensions for structural steelwork on the site to within a sixteenth of an inch, a process which enabled them to have the bulk of the work fabricated in the shops. This, of course, resulted in a very considerable saving in time and cost, and possibly indicated a future tendency to relegate as much work as possible to shops instead of the job. Delays through bad weather and difficult conditions of work on the job were not met with in workshops, where work could be carried on in an organised manner uninterruptedly.

The lecturer referred at length to the need for co-operation of sub-contractors, who too rarely produced their goods at the time promised. The need for organisation was obviously as great in the case of sub-contractors as general contractors. He urged all students of building to appreciate the value of their early training in the elementary necessities of building work, since it was too frequently the case that delays and extra cost resulted from inattention to the smaller matters. Reference was made to the need of more accurate systems of costing, which would enable firms to estimate more closely the cost of subsequent jobs.

An interesting discussion followed the lecture, in which several members of the staff and students took part. Many important matters were raised, among them being the suggestion that better facilities of training in efficient organisation should be available. This point, however, was met with the suggestion that very rarely would those engaged in the industry carry on their education to a really satisfactory conclusion, and that the tendency for individuals to aim at efficiency in one branch of building administration only could not lead to a state of affairs for which the lecturer had appealed.

INDUSTRIAL USES OF GAS

In a paper presented at a meeting of the Institute of Fuel, held at the Chemical Society's Rooms, Burlington House, W.1, on March 13—Dr. C. H. Lander, C.B.E., M.I.C.E., in the chair—Mr. Francis W. Goodenough, C.B.E., F.Inst.F., said that nothing was more striking or interesting in the history of the gas industry in recent years than the growth of the use of gas in our factories and workshops in the myriad processes which called for the heat treatment of the materials employed in the production of goods for sale, and, he might add, of the foodstuffs employed for the feeding of those engaged in that production. That growth had been both by way of the extension throughout a trade of the use of gas for purposes for which it had been found advantageous by firms engaged in that trade who had been first to employ it; and by way of the discovery of additional purposes to which gas could with advantage be adapted in that and in other trades. It would be useful to consider the causes for this great development in the application of gas to industrial processes. The first impulse undoubtedly came in the years immediately preceding the War, from the realisation by manufacturers of the imperative necessity of adopting every means for increasing the efficiency of production in our factories and workshops in face of intensifying competition, both between home firms engaged in the same trade and between those firms and their foreign competitors. The inherent disadvantages of using raw coal were, indeed, fairly obvious. Could anything, in truth, be more unsuitable as a source of heat for modern industrial requirements than the combustion of raw coal? The inherent advantages of the use of gas as a fuel in industry were, first of all, the great *saving in labour* which it effected, and the improved conditions of work which resulted from the abolition of drudgery, of unduly heated atmosphere and of the general condition of dirt inseparable from the use of coal. There was, further, the important consideration of *saving of space*, as gas-fired appliances took much less room than coal-fired, and required no space for the storage of fuel.

Where new factories were being erected there was also to be taken into account the important saving resulting from the fact that large *chimney stacks were not required* where gas was the fuel employed. In fact, the change from solid fuel to gas in some of the large existing factories in our great industrial cities had occasioned the taking down of many large chimneys and stacks, which only a few years back were emitting almost continuously huge volumes of smoke, and the consequent contamination and vitiation of the atmosphere. On that point it might be remarked that it had been stated that certain industrial heating operations, more especially in connection with the production and heat treatment of steel in bulk, could not be satisfactorily carried out in gas-heated furnaces. He believed that opinion to be unfounded. It was fully appreciated that in many operations, particularly those connected with annealing, normalising and treatment of high carbon steels, it was necessary that the atmosphere in the furnace should be non-oxidising, and, in many instances, of a reducing nature. Further, that heating by flame contact, such as in the case of direct-fired coal-heated furnaces, was absolutely essential. But it is the opinion of the technical experts in the gas industry that the production of smoke by the incomplete combustion of solid fuel, to produce conditions of heating just referred to, could be entirely eliminated by the adoption of gas-heated furnaces of suitable design. With modern types of gas-heated furnaces, it was possible to produce within the working chambers either neutral, oxidising or reducing atmospheres; and if heating by flame contact was essential, long lambent flames could be produced within the working chamber by the suppression of the primary air with properly designed burners, the combustion being completed by the addition of secondary air at a point beyond the combustion chamber and on the inlet side of the recuperator, so that the incomplete combustion of the fuel in the furnace chamber was not necessarily attended with low fuel efficiency. A further inherent advantage of gaseous fuel was the *ease of regulation and control* which enabled exact temperatures required to be attained and maintained, prevented overheating, and resulted in improved and increased output both per unit of space and per unit of labour employed.

ELECTRICAL DEVELOPMENT

The annual dinner of the British Electrical Development Association, was held on March 14 at the Piccadilly Hotel, the President, Sir John M. Gatti, being in the chair. The principal guest was Lord Birkenhead, P.C., G.C.S.I., and supporting the chairman were Sir Herbert E. Morgan, Sir Harry Howard, Sir John R. Brooke, C.B., Ald. Sir Duncan Watson, Col. R. E. Crompton, Messrs. W. Walker, F. Massingberd Rogers, W. W. Lackie, J. W. Beauchamp, C. H. Merz, Frank Hodges, T. P. Wilmshurst, W. H. Walton, A. Nichols Moore, W. F. Moir, and the Secretary, Lt.-Col. W. A. Vignoles.

In proposing "The Association," Lord Birkenhead referred to himself as a newcomer to the industry. Continuing, he said he desired to avoid controversial topics, and remarked: "Whether it would be an advantage to the trade of this country and the trade in which you are interested if we were to say to the whole world, 'Keep your capital away; we don't want it; we will continue to pay not only our own War debts but the War debts of our Allies; we will maintain the gold standard,' I do not know. But at least let us protect ourselves by saying, 'You shall not invest one penny of foreign money in this country.'" He wished that some historical economist would examine the question as to how much British capital had been invested in foreign countries since the Napoleonic Wars, and with what results. He wished also that some contemporary economist would say at this moment how much British capital was invested abroad without any differentiation between the British and foreign investor, and with what results.

The economic forces of this country in the next ten years would certainly be profoundly influenced and possibly determined by the development of electrical power in these islands. The Bill introduced by the Government was a bold and courageous attempt to enlist powerful forces upon the side of this new movement. He was certain that the Electricity Board and Commissioners were doing their best, and he saw many signs that they were successfully devoting themselves to the task of making electrical power the most vital element in the developments of trade and of movement in this country.

The Chairman, in reply, appealed to the members of the association to co-operate in all branches of the industry, both producers and distributors, to make known the advantages of electricity to the general public. They could congratulate themselves on having Lord Birkenhead to turn to for guidance in the problems that were before them.

Mr. J. W. Beauchamp proposed "The Guests," and Sir Herbert E. Morgan responded.

Wickham Hall Estate.

Illustrated particulars of the Wickham Hall Estate, Kent, have been issued by Messrs. Knight, Frank & Rutley, who are to offer the property by auction at Hanover-square on April 9. Wickham Hall fronts the West Wickham High-street. The property extends in all to some 12¾ acres.

MAINTENANCE OF A STANDARD OF LIVING

In our leading article, February 1, on the Industrial Statistics for 1928, we made the following observation: "The protected trades" (meaning thereby the sheltered trades) "enjoy a different standard of wages from the unprotected trades or industries and an artificial standard of living thus exists unwarranted by the reproductive efforts of the nation." Since these words were published the Liverpool Steam Ship Owners' Association at its annual meeting has considered, on February 12, the annual report, which deals with this question, and there are some observations in that report which bear out the view we expressed. It states: "It is the extent to which we can sell to our customers abroad that ultimately controls the standard of living in this country." It is then pointed out that with a large increase in population, although there is a considerable falling off in the export trade since 1913, we have endeavoured to maintain the same standard of living by importing food on a similar scale to that of 1913, and manufactured articles to a much greater scale, while at the same time the imports of raw materials have declined, and thus we have reduced by more than one-half the credit balance on our international trade which in pre-War years was available for investment overseas. The report then points out that for this country to make progress the problem of marketing its produce has to be solved and the solution must depend upon *price*, and after enumerating the factors which contribute to the cost per unit of output there follows this passage: "While living upon the imports derived from our foreign trade, the sheltered trades have endeavoured to leave the burden of competition to fall on the industries directly engaged in that trade. But the prices they have charged have reacted on the cost of production throughout all the industries, with the result that the country's competitive power in the export market has been restricted the volume of exports has failed to attain to pre-War dimensions, the wages in the exposed trades have been forced down, the cost of living to the country as a whole has been increased, and the sheltered trades themselves have suffered from a restricted home market."

We commend these observations to those who think that in a country dependent on its export trade for its wealth, and the importation of foodstuffs for its existence, we can maintain our trade, employ our people and uphold our standard of living by processes which savour of taking in our own washing. The idea of any fixed "standard of living" is a comparatively recent doctrine encouraged by the War when people were remunerated without any regard to the value of the product of their labour, that labour being for the major part in its nature and by necessity unproductive.

In pre-War times a man's standard of living was determined by what he could earn and the amount that he could earn was relative to the value of that which he could produce. Modern social legislation has in itself greatly improved the standard of living of large sections of the community, but it imposes a heavy burden upon the trade of the country and must affect our export trade to nations that do not impose upon themselves the same burden to a like degree. In addition to these social services, to set up an artificial standard of living apart from productive capacity is to attempt the impossible, and the attempt can in the long run but tend to increase unemployment and the necessity for relief to those put out of the struggle. The doctrine that "unless a man work neither shall he eat" in a country such as ours must be expanded into a recognition of the principle that unless a man can produce more than he spends the end must be disaster.

NEW BUILDINGS IN LONDON

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned.

Aldwych.—OFFICES.—The contract for the erection of the superstructure of the East wing of Bush House, for the Bush Terminal Co., Ltd., has been placed with Messrs. John Mowlem and Co., Ltd., of Ebury Bridge-road, Westminster, S.W.1, at about £132,000. The plans have been prepared by Messrs. Helmle and Corbett and Harrison, of New York, whose British representative is Mr. H. Rogers Houchin, F.R.I.B.A., of Bush House. The quantity surveyors are Messrs. Ball and Ashby.

Alperton.—FACTORY.—Tenders have been received for the erection of a large factory, offices, etc., for the British Glasurite Co., Ltd., of Ealing. The building, which will cost about £20,000, has been designed by Messrs. J. Stanley Beard and Clare, F. and A.R.I.B.A., 101, Baker-street, W.1. The quantity surveyor is Mr. E. Babbs, F.S.I., 40, St. James's-place, S.W.1.

Becontree.—SHOPS.—The London County Council have been recommended by the Housing Committee to approve the erection on the Dagenham (No. 8) section of Becontree of four lock-up shops.

Bethnal Green.—FACTORY.—A large machine shops, etc., are to be erected in Lark-row, E.2, for Messrs. William and Son, under the direction of Mr. George Silvester, architect and surveyor, 7, John-street, Adelphi, W.C.2. The contract has been placed with Messrs. Chessums, Ltd., Imperial Works, Portland-road, N.15.

Bow—REBUILDING.—The plans for the re building of the large garage in Tredegar-square, E.3, for the Metropolitan Transport Supply Co., Ltd., referred to in our last week's issue, are being completed by Messrs. Belfrage, Saville and Hooper, architects and surveyors, Norfolk House, Norfolk-street, Strand, W.C.

Brentford and Chiswick.—The Urban District Council invite tenders for the erection of two blocks of 54 flats each. Plans are by Mr. Edward Willis, F.S.I., M.I.C.E., Town Hall, Chiswick, W.4.

Brockley Rise.—EXTENSION.—A contract has been placed with Messrs. Rice and Sons, Ltd., 15, Stockwell-road, Brixton, S.W.9, for the erection of a large factory as an extension of the Guardax Safety Glass Co.'s works in Gladiator-street, S.E. The steelwork will be supplied by Messrs. The Aston Construction Co., Ltd., Hoxton, N.1. The plans have been prepared by Messrs. Fuller, Horsey, Sons and Cassell, 11, Billiter-square, E.C.3.

Caterham. — SHOWROOMS. — The Croydon Gas Co., Ltd.. Katherine-street, Croydon, have decided to erect new showrooms and offices in the High-street, Croydon. The plans have been prepared by Mr. H. Douglas Robinson, A.R.I.B.A., 56, Cannon-street, E.C.4. The builders are Messrs Truett and Steel, Ltd., Thornton Heath High-street.

Chelsea.—ADDITIONS.—Messrs. Frazer and Ellis, Ltd., have decided to carry out alterations and additions, including a new warehouse, at their premises in Church-street, S.W. The contract has been placed with Messrs. L. and W. Whitehead, Ltd., 169, Clapham-road, S.W.9, at about £8,500. The plans have been prepared by Messrs. Percy Tubbs, Son and Duncan, 39, Great James-street, W.C.1. The quantities have been prepared by Messrs. Gleed, Sons and Co., 8, Martin's-lane, E.C.4.

Clapham. — BATHS. — The Wandsworth Borough Council has authorised the necessary steps for the preparation of a scheme for the erection of a swimming bath and an appropriate number of washing baths on the Council's site in Manor-street, Clapham.

Cricklewood.—GARAGE.—A site in the Edgware-road, N.W., has been purchased by Messrs. Papelian, Ltd., of Piccadilly, W.1 for the erection of a garage and repair works. Mr. C. Marques, consulting engineer, prepared the plans.

Ealing.—FACTORY.—On a site in Northfield-avenue, a new factory is to be built for the Ideal Cleaners and Dyers, Ltd. The architect is Mr. W. S. Grice, of 7, Gray's Inn-place, W.C.1.

Ealing.—SHOPS.—A block of flats, with a range of shops on the ground floor, is to be built on a site on the Green, W., to the designs of the architect, Mr. G. E. Nield, F.R.I.B.A., Outer Temple, Holborn, W.C.2. The contractors are Messrs. G. S. Lewis and Bros., Reading, Berks.

Ealing.—SHOWROOMS.—Plans have been prepared for the erection of showrooms, with other structural alterations, at the works at Ealing Broadway and Seaford-Road, W. The architects are Messrs. P. H. Clarke and Son, 21, Surrey-street, Strand, W.C.2. The builders are Messrs. Holliday and Greenwood, Ltd., Buckingham Palace-gardens, S.W.1.

East Ham.—The East Ham Corporation propose to erect a building, to be used as an electricity sub-station, at Church-road, Manor Park. Plans are by Mr. A. T. Bridgewater, F.S.I., Borough Engineer, Town Hall, East Ham, E.5. Tenders are now being invited.

Finchley.—REBUILDING.—The rebuilding of the branch premises at Park Parade, North Finchley, N.W., has been decided upon by the owners, Messrs. Lilley and Skinner, Ltd. The contract has been placed with Messrs. Allen Fairhead and Son, Ltd., Sydney-road, Enfield. The plans have been prepared by Mr. Gordon Jeeves, F.R.I.B.A., 16, Hanover-square, W.1.

Finsbury.—BATHS.—The Finsbury B.C. have under consideration plans for the erection of new baths and wash-houses. The plans show a building accommodating 40 women's and 40 men's slipper baths, public wash-houses, laundry, etc., estimated to cost about £38,000. The architects are Messrs A. W. S. and K. M. B. Cross, 46, New Bond-street, W.1.

Great Portland-street.—A contract for extensions to Messrs. Lloyds Bank, Ltd., in this street has been placed with Messrs. Charles R. Price, of 107, Bishopsgate, E.C.2. The architect is Mr. A. C. Johnson, of the bank's architectural department.

Hackney.—STORE.—Messrs. J. Sainsbury, Ltd., are erecting a new store at 392, Mare-street, Hackney.

Hackney. — ADDITIONS.—New additional office accommodation is to be provided for children at the North Hackney Central School, Hillsea-street and Elmcroft-street, for the L.C.C.

King William-street.—Messrs. C. R. Price, of 107, Bishopsgate, E.C.2, are the building contractors for the proposed extension to the London Life Association Buildings. Messrs. Curtis Green and Partners, 5, Pickering-place, S.W.1, are the architects.

Millwall.—IMPROVEMENTS.—The modernisation of the West India and Millwall Docks system has been carried a step further by the Port of London Authority, who have accepted the tender of Messrs. A. Jackaman and Son. Ltd., of Royal Victoria Dock, for the construction of sheds, equipment of quays, etc., at the South-West India Dock.

Northolt. — PREMISES. — Licensed house known as "The Swan Inn," is to be built for Messrs. Watney, Combe, Reid and Co., Ltd., in Ealing-road, Northolt. Messrs. F. J. Fisher and Son, 35, John-street, Bedford-row, W.C.1, are the architects

Porchester-terrace. — ALTERATIONS. — Extensive alterations, including the building of an additional story, are being carried out at No. 14, Porchester-terrace, W. The architects are Messrs. Forbes & Tate, and the contract has been placed with Mr. Charles R. Price, of Bishopsgate.

Regent's-park.—GARAGE.—The contract for the erection of the superstructure of the Royal Regent Garage in Park-street, N.W.1, for the Portman Trust, Ltd., has been secured by Sir Walter Lawrence and Son, 31, Sun-street, Finsbury-square, E.C.2. The plans have been prepared by Messrs. Mewès and Davis, 22, Conduit-street, W.1.

Sloane-square. — ALTERATIONS.—The proprietors of the Royal Court Hotel have under consideration the improvement of their premises by the rebuilding and redecoration of the hotel restaurant. The plans have been prepared by Mr. D. Robertson, 4, Francis-street, Westminster, S.W.

Stepney.—EXTENSIONS.—The Stepney Board of Guardians propose extensions to the Mile End Hospital Mortuary. Tenders are now being invited. The clerk is Mr. S. McClelland, Administrative Offices, Bancroft-road, E.1.

Thornton Heath.—BRANCH.—The South Suburban Co-operative Society, Ltd., London-road, Croydon, have commenced the erection of a new branch stores, the contract for the building being in the hands of their Building Department. The plans for the premises were prepared by Messrs. Bethall, Swannell and Durnsford, 16a, John-street, Adelphi, W.C.2.

Wembley.—PREMISES.—Messrs. Benskin's Watford Brewery, Ltd., have decided to erect a public house upon a site in Harrow-road and Oakington Manor-drive, to cost about £14,000. The architect is Mr. E. B. Musman, A.R.I.B.A., 7, Carteret-street, S.W.1, and the quantity surveyor is Mr. F. Saunders, Staple Inn, W.C.2.

Westminster.—REBUILDING.—The British American Tobacco Co., Ltd., of Westminster House, Millbank, S.W., have decided to rebuild their office premises at 10, Smith-square, S.W.1. The plans have been prepared by Messrs. Gordon and Gordon, of Finsbury House, Blomfield-street, E.C.2.

CONTRACTS PLACED

Nottingham. — BANK. — The Westminster Bank, Ltd., have acquired a site at the corner of Mansfield-road and Hucknall-road for the erection of a block of offices and banking premises. The contract will be carried out by Mr. Rayner Hustwayte, 37, Hadyn-road, Sherwood, Nottingham. The plans have been prepared by Messrs. Heazell & Son, architects and surveyors, of Nottingham.

Skegness.—A site opposite the pier is to be developed by the erection of a block of new premises, including a restaurant, dance hall, shops, etc. The builder of the restaurant, the first portion of the scheme, which will seat 800 diners, is Mr. F. W. Walker, Agitha-road. The plans have been prepared by Messrs. John Wills & Son, architects, Agitha-road.

Swansea.—BANK.—The contract has been given to Messrs. Griffith Davies & Co., for the work in connection with the branch bank premises of Messrs. Barclays Bank at Uplands, Swansea. The architect is Mr. Glendinning Moxham, F.R.I.B.A., of Swansea.

Wolverhampton.—BRANCH.—Messrs. Marks & Spencer, Ltd., Chiswell-street, E.C.1, have acquired a site for the erection of a new branch. The plans have been prepared by Mr. A. E. Batzer, A.R.I.B.A., 36, Ebury-street, S.W.1, and the building will be erected by Messrs. Bovis (1928), Ltd., 43, Upper Berkeley-street, W.1. The quantity surveyors are Messrs. Gleed, Sons & Co., 8, Martin's-lane, E.C.4.

York.—SHOPS.—Tenders have been received for the erection of the large block of shops and offices on the site of the old Harker's Hotel. The contract has been placed with Messrs. William Birch & Dons, Ltd., Spen-lane, York. The plans have been prepared by Messrs. T. P. Bennett & Son, FF.R.I.B.A., 41, Bedford-row, W.C.1.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aldershot	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford Kent	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Aylsham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/10	1/10	1/10	1/11	1/10	1/10	1/10	1/4½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/3	1/3	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/4	1/4	1/4	1/5	1/4	1/4	1/4	1/0
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton-Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9*	1/9	1/9	1/8	1/4
12-15 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 579.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk T.C.; County Engineer, C.E.; County Surveyor. C.S.; County Architect, C.A.: Surveyor, S.: Engineer E.: Borough Architect, B.A.: Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

MARCH 25.

Accrington.—Painting.—Also decorating assembly room, at Central Conservative Club. Ashworth Nuttall, Secretary and Manager.

Amersham.—Alterations.—Also additions at grammar school, for Bucks E.C. C. G. Watkins, secretary for education, Education Office, Aylesbury. Dep. £2 2s.

Ardrossan.—Houses.—16 flatted houses of three apartments each at Bath site, for T.C. J. C. Hunter, architect, 15, Barr-st.

Bideford.—Painting.—Also recolouring infirmary and certain other repairs, etc., for B.G. M. J. Durant, clerk.

Blackpool.—Steel Building.—At Rigby-rd. tramways engineering depot, for Tramways, etc., Electricity Committee. C. Furness, Borough Electrical Engineer and Tramways Manager.

Brighton.—Secondary School.—Erection of, for boys, at Farndean, for the Brighton E.C. Thos. Simpson & Son, 16, Ship-st., Brighton. Dep. £3 3s.

Brighton.—Alterations.—For (a) alterations and additions to resident medical officers' bungalow, Poor Law Institution, Elm-grove, and (b) alterations to hot water service, including installation of gas-heated boilers, etc., No. 2 receiving home, Warren Farm schools, for B.G. E. Wallis Long, architect, 6, Old Steine, Brighton.

Dublin.—School.—National school at O'Donovan-rd., Fairbrothers' Fields, for Rev. Brother T. M. Lennane, Superior, Synge-st. J. J. Robinson, F.R.I.A.I., 8, Merrion-sq., N., Dublin.

Durham.—Houses.—18, in New Elvet, for T.C. J. W. Green, City E. and S. Dep. £2 2s.

Edinburgh.—Transformer House.—At Bruntsfield, for T.C. J. MacRae, A.R.I.B.A., City Architect.

Glamorgan.—Painting.—At South Wales and Monmouthshire Industrial school, Quakers-yard, Glam. Johnson, Richards & Rees, architect and Surveyors, Merthyr.

Glasgow.—School.—Additional classrooms at Hamiltonhill R.C. temporary school, Auckland-st., Hamiltonhill, for E.C. Education Offices (Property Dept.), 129, Bath-st. Dep. £2 2s.

Greenock.—Railings.—Wrought-iron railings and gates in connection with new High school, for Renfrewshire E.C. J. Hamilton Pullar, Executive Officer, County Education Offices, 16, Glasgow-rd. Dep. £1.

Greenwich.—Repairs and Redecorative Works.—To certain flats in the Council's Housing Estate at Blackheath, for the Metropolitan Borough of Greenwich. Borough Engineer, Town Hall, Greenwich-rd. Dep. £1 1s.

Hemel Hempstead.—Cottages.—10, on Council's housing site at Cavendish-rd., Markyate, for R.D.C. T. H. Lighbody, L.R.I.B.A., 32, Alexandra-rd. Dep. £1 1s

Hertfordshire.—Extensions and Alterations.—To the Hertfordshire General Hospital, for the Hospital Committee. Widnell & Trollope, Quantity Surveyors, Broadway-court, Broadway, Westminster, S.W.1. Dep. £5 5s.

Hull.—Depot.—Motor bus depot in Barnsley-st., for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £2 2s.

Kirkby-in-Ashfield.—Houses.—20 at Bannerman-rd., 28 at Forest-rd., Annesley Woodhouse, for U.D.C. L. Dodsley, architect, Public Offices. Dep. £3 3s.

Knottingley.—Wiring.—For electric light of 48 proposed houses in Weeland-rd. and Womersley-rd., for U.D.C. S.

Leicester.—Extension.—2 blocks at Leicester Frith Institution, Groby-rd., for T.C. Pick, Everard, Keay and Gimson, architects, 6, Millstone-lane. Dep. £2 2s.

Leanhead.—Houses.—44 three-roomed houses in Kennington-av. and at South Side of Loan, for T.C. G. B. Deas, architect, Central-chambers, Kirkcaldy.

London.—Installation.—Of electric lighting at 7 blocks of tenement buildings in Bethnal Green, for Bethnal Green B.C. H. W. Couzens, 9, Old Queen-st., S.W.1

Newry.—Conversion.—Of buildings hitherto occupied as military barrack, Newry, into working-class dwellings, etc., for U.D.C. C. Blaney, Town Surveyor. Dep. £2 2s.

Oswestry.—Houses.—Four non-parlour type, on Llwyn housing estate, for Corporation. H. B. Jones, T.C. Dep. £2 2s.

Romford.—Painting.—Outside wood and iron work of all buildings at Isolation Hospital, Rushgreen; also certain interior decorations, for Joint Hospital Board. T. W. A. Greenhalgh, clerk, 16a, South-st.

Ruislip-Northwood.—Pavilion. — At Northwood open space, adjoining "The Drive," Northwood, for U.D.C. E. and S.

Stirling.—Houses.—16, at Burnside, for T.C. A. H. Goudie, B.E. Dep. £1.

Tathury.—Houses.—12 at Avening, for R.D.C. G. Hearsey, E. and S., 7, Silver-st. Dep. £1 1s.

Weardale.—Houses.—10 at Rookhope, for R.D.C. F. H. Thompson, clerk.

MARCH 26.

Dorking.—Telephone Exchange.—Erection of, at Abinger Hammer, Dorking, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Dublin.—Repairs.—Also maintenance of slated roofs, sundry Corporation buildings, for C.B., City Architect, Exchange-buildings, Lord Edward-st.

Fochabers.—House.—J. H. Marshall, Fochabers.

Kingston.—Repairs.—Painting and building works at Kingston and District Hospital and Central Relief Institution, and shed at rear of Union Offices, for B.G. W. Taylor, Clerk.

London.—Painting, Pointing and Repairs.—At the Bethnal Green Hospital, Cambridge-rd., Bethnal Green, E.2, for the Bethnal Green Board of Guardians. C. Faulkner Jones, Clerk, Guardians' Offices, Bishop's-rd., Bethnal Green, E.2. Dep. £2.

Manchester.—Shelters.—Two at Broadhurst-park, for T. C. City Architect. Dep. £1 1s.

Oakley.—Houses.—Pair of non-parlour, at Oakley, Brill, for Long Crendon R.D.C. A. J. Webb, architect, Long Crendon, Thame.

Waterloo-with-Seaforth.—Houses.—33 non-parlour in Holden-st., for U.D.C. J. R. Fothergill, E. and S. Dep. £1 1s.

MARCH 27.

Atherton.—Cottages.—30 non-parlour, and Hag Fold estate, and also for 2 in Wigan-rd., for U.D.C.. S. Dep. £2 2s.

***Bootle.**—Council School.—Erection of the Roberts Council school (to accommodate 1,260 children), on a site in the Council Orrell Housing Area, for the Bootle E.C. Secretary for Education, Town Hall, Bootle. Dep. £2 2s., payable to Borough Treasurer.

Cairo.—Electric Lighting.—In town of Fashn, for Ministry of Interior, Section des Municipalites et Commissions Locales, Cairo. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Reference number B.X. 5037.)

Dalkey.—Houses.—9 at Carysfort-rd., for U.D.C. J. G. Treston, T.C.

Dublin.—Extension.—To technical schools, Bolton-st., for B. of E. Robinson and Keefe, architects, 8, Merrion-sq. Dep. £3 3s.

Dublin.—Repairs.—Also maintenance of slated roofs, for B.G. J. P. Condon, clerk, Board Room, James's-st.

Finchley.—Conversion of Building.—Conversion of existing building into two flats at the Sewage Disposal Works, Summers-lane, North Finchley, for the U.D.C. Council's Engineer, Percival T. Harrison, M.Inst.C.E., 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep. £1.

Hackney.—Cleaning and Painting.—Internal and external repair of pavilion "C" at the Hackney Hospital. E. W. Harbour, Clerk, Hackney Union, 2, Sidney-rd., Homerton, E.9.

Hackney.—Cleaning and Painting.—Internal and external repair of the male block at the Central Institution. E. W. Harbour, Clerk, Hackney Union, 2, Sidney-rd., Homerton, E.9.

Dublin.—Repairs.—Also maintenance of slated roofs, for B.G. J. P. Condon, clerk, Board Room, James's-st.

Helmsdale.—Houses.—10, for Sutherland C.C. G. Calder, architect, Dornoch. Dep. £1.

Holywell.—New P.O. and Telephone Exchange.—Erection of, at Holywell, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Huddersfield.—Bungalow.—In Dingley-rd., Lindley. Lunn & Kaye, architects and surveyors, Milnsbridge.

Lambeth.—Repairs, Renovation, Decorations, etc.—To the two chapels at the Lambeth Cemetery, Blackshaw-rd., Tooting, for the Lambeth B.C. Osmond Cattlin, B.E., Lambeth Town Hall, Brixton, S.W.2. Dep. £1.

Lewes.—Station Sorting Office.—Erection of, at Lewes, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Liverpool.—Pavilion.—Bowls pavilion and conveniences at Wavertree Playground, for T.C. Land Steward and Surveyor.

London.—Shelter.—Erection of, at St. Andrew's Hospital, Devon's-rd., Bow, E.3, for the Poplar Board of Guardians. Harley Heckford, M.I.C.E., Borough Surveyor, Council Offices, High-st., Poplar, E.14. Dep. £1 1s.

Oldham.—Lighting.—Electric lighting installation for 200 houses on Limeside estate, for C.B. B.E. and S.

South Mimms.—Houses.—Erection of 30 non-parlour and 88 parlour-type houses at Mutton-lane, Potters Bar, for South Mimms R.D.C. George Simcox, Council's Architect, Bearwood, The Causeway, Potters Bar. Dep. £1 1s.

St. Helens (I. of W.).—Houses.—Station-rd., St. Helens, 16 semi-detached parlour houses; Great Preston-rd., High Park, 14 semi-detached intermediate type houses, for U.D.C. L. F. Phillips, clerk

Wallasey. — Conveniences. — Leasowe Common, Moreton, for C.B. B.E. and S. Dep. £1 1s.

West Riding.—Alterations.—To W.C.s in junior department of Ryecroft Council School, Rawmarsh, for C.C. A. Adcock, Divisional Clerk, Education Office, Godstone-rd., Rotherham.

Wigston Magna.—Houses.—104 in Aylestone-lane, for U.D.C. W. G. J. Clark, E. and S. Dep. £2.

MARCH 28.

Bournemouth.—Pavilion.—Swanmore-rd., Ilford estate, Pokesdown Hill, for C.B. F. P. Dolamore, B.E. Dep. £1 1s.

Chatteris.—Houses.—20 non-parlour type, in New-road, for U.D.C. Solden Hipwell, architect, 19, New-rd. Dep. £2 2s.

Cheltenham.—Houses.—Six pairs non-parlour type in Cemetery-rd., Prestbury, for R.D.C. L. W. Barnard & Partners, architects, Promenade. Dep. £2.

Cork.—Building.—New Bishop's Palace, in Bishop's Field, Farranferris, Cork, for Rev. D. Cohalan, D.D., Lord Bishop of Cork. J. R. Boyd Barrett, A.R.I.B.A., chartered architect, 61, Southhall, Cork. Dep. £5 5s.

East Ham.—Building.—Erection of building, to be used as an electricity sub-station, at Church-rd., Manor Park, for the East Ham B.C. A. T. Bridgewater, F.S.I., Borough Engineer, Town Hall, East Ham, E.6. Dep. £2 2s.

Ferryhill.—Homes.—18 aged miners' homes at Deanbank, for Deanbank Aged Miners' Homes Committee. J. Stone, architect and surveyor, Sedgefield.

Ireland.—Building.—For (1) improvements to Lisduff National school, Co. Mayo; and (2) National school at Claregalway, Co. Galway, for Commissioners of Public Works. T. Cassedy, secretary, Dublin. Dep. £1 each.

***Islington.**—Sanitary Work.—Installation of bed pan sluices and ward lavatory basins at the Infirmary, Highgate-hill, N.19, for the Guardians of St. Mary, Islington. Vine & Vine, A.R.I.B.A., Tudor-chambers, Station-rd., Wood Green, N.22. Dep. £2.

Nantwich.—Repairs.—Also alterations and painting of outside wood and iron work at Poor Law Institution, for B.G. C. E. Davenport, architect, 152, Hospital-st.

Penryn, Cornwall.—Houses.—20, with certain road and sewer work, at Glen View, Penryn, for T.C. P. E. Stephens, A.R.I.B.A., Midland Bank-chambers, Falmouth Dep. £1 1s.

Shelf.—Houses.—Eight on Shelf Hall site, for U.D.C. G. R. Oddy, Lic.R.I.B.A., architect and surveyor, Ward's End-chambers, Halifax.

***Shropshire.**—School Building.—Erection of, at Harlescott, near Shrewsbury, for the Shropshire E.C. W. H. Pendlebury, Secretary for Education, County-buildings, Shrewsbury. Dep. £2 2s.

MARCH 29.

Huddersfield.—Extensions.—To Empress Works, St. Thomas's-rd., for Brook Motors, Ltd. J. Ainley, architect and surveyor, 55, New-st.

Skipton.—Water Supply.—Replacement of portion of existing hot water system with copper tubing, for B.G. M. R. Knowles, clerk, High-st.

MARCH 30.

Buxton.—Painting.—Also decoration of hot baths, St. Ann's Well, Natural Baths, etc., for T.C. F. Langley, B.E.

***Durham.**—Primary School.—Erection of, at the Grove Estate, near Consett, for the Durham E.C. F. Willey, F.R.I.B.A., F.S.I., 34, Old Elvet, Durham

Llansannan. — Repairs. — To Henry Rees Memorial Chapel. Meredith Owen, Ty Iorwerth, Llansannan.

Llanwinio.—Renovating.—Moria Chapel. J. L. Thomas, secretary, Pilmawr, Whitland.

Southampton. — School Buildings. — Conversion of Andover Old Grammar School into a new junior Council School, for the Southampton C.C. A. L. Roberts, F.R.I.B.A., City Architect, The Castle, Winchester. Dep. £1 1s., payable by cheque to the Hampshire C.C.

***Stoke-on-Trent.**—New Council Schools.—Erection of, at Meir, Stoke-on-Trent, for the Education Committee. R. P. G. Williamson, M.A., Director of Education, Town Hall, Hanley, Stoke-on-Trent. Dep. £2 2s.

MARCH 31.

Alston.—Extension.—To Ruth Lancaster James Cottage Hospital. W. Lawson, Hon. Sec., Rosehaugh, Alston. Dep. 5s.

APRIL 1.

Bicester.—Two pairs of Houses.—Erection of, at Upper Arncott, for the Bicester R.D.C. Eustace F. T. Davis, Sanitary Surveyor, Hethe, near Bicester. Dep. £2.

Dundee.—Installation.—Heating installation at Grove Academy, Broughty Ferry, for E.C. Master of Works, Education Office.

Ludlow.—Houses.—40, situate in Sandpits-rd., for T.C. Wm. Geo. Lane, B.S. Dep. £2 2s.

Middlewich.—Demolition.—Of houses and buildings and widening and construction of roads, etc., for U.D.C. F. W. Stocks, Town Hall. Dep. £5 5s.

APRIL 2.

Dartford.—Houses.—Erection of 90, on the Dartford-rd. Housing estate, for the Dartford U.D.C. J. James Hurtley, Clerk, Council Offices, Dartford. Dep. £2 2s.

Doncaster.—Shelter,—In Elmfield-park, for C.B. R. E. Ford, Estates and Race Surveyor, 3, Priory-place.

Faversham.—Houses.—Erection of 52 dwelling houses in various parishes, for the Faversham R.D.C. The Clerk, 19, West-st., Faversham. Dep. £2.

Halstead.—Cottages.—36 non-parlour on Millfield Housing site, for U.D.C. W. A. Nicholson, S.

Heywood.—Houses.—38 in Egerton-st. and Hind Hill-st., for T.C. J. B. Nuttall, B.S. Dep. £1 1s.

Hull.—Houses.—96 parlour and non-parlour on Derringham Bank Farm site, Willerby New-rd; and 34 parlour and non-parlour on the Westcott-st. site, for T.C. D. Harvey, A.R.I.B.A., City Architect.

Hull.—Heating and Hot Water Supplies.—Schemes for, at the Maternity Home and Infants' Hospital, Hedon-rd., for the Maternity and Child Welfare Committee of the Hull Corporation. D. Harvey, A.R.I.B.A., City A., Guildhall, Hull. Dep. £2 2s., payable to City Treasurer.

Rathdowney.—Houses.—6, at Rathdowney, Co. Leix, for Irish Sailors' and Soldiers' Land Trust. R. E. Beckerson, Chief Clerk, 50-51, Upper Mount-st., Dublin. Dep. £5 5s.

Swaffham.—Houses.—Ashill 3 pairs and Holme Hale 3 pairs, for R.D.C. I. Shingles, clerk. Dep. £1.

Truro.—Houses.—18 non-parlour, on Hendra site, for T.C. F.A. Barnes, City E. & S.

Walsall.—Extensions.—To Municipal Technical School of Art, Goodall-st., for E.C. J. Taylor, B.E. Dep. £3 3s.

APRIL 3.

Birr.—House.—Also outoffice on lands of Annagh, near Derrinsallow, Parish of Dorrha, Birr, for Irish Land Commission. J. T. Drennan, secretary, Upper Merrion-st., Dublin. Dep. £1.

Camberwell.—Dwellings.—Construction of two blocks of dwellings and other incidental work at Oliver Goldsmith Estate, Blue Anchor-lane, Camberwell, for the L.C.C. Architect to the Council, the County Hall (Room No. 3), Westminster-bridge, S.E.1. Dep. £2.

Glaston.—Extension.—Removal of present Council chamber and re-erection as extension of cricket pavilion, including necessary conveniences, at Recreation ground, for U.D.C. W. Aiston, S.

Dublin.—Extensions.—To Bolton-st. schools, for C.B. Robinson & O'Keeffe, architects, 8, Merrion-sq. Dep. £3 3s.

Wortley.—Building.—Ward block and public mortuary at Isolation Hospital, Grenoside, for R.D.C. F. Thurlby, E. and S. Dep. £1 1s.

APRIL 4.

Salford.—Heating.—Superstructures and stages and installation of heating apparatus for new greenhouses at Buile Hill Park, for T.C. Parks Superintendent, Buile Hill Park. Dep. £2 2s.

Stepney.—Mortuary Improvements.—Erection of a post mortem and relatives' viewing room (extension to existing mortuary), at the Mile End Hospital, for the Stepney Board of Guardians. S. McClelland, clerk, Administrative Offices, Bancroft-rd., E.1. Dep. £1.

***Sussex.**—Alterations and Additions.—To the Male Infirmary and the Nurses' Home at the West Hylands Institution, Cuckfield, Sussex. Wm. H. Overton, F.R.I.B.A., F.S.I., 38 and 39, West-street, Brighton. Dep. £2 2s.

Whitstable.—Fences.—Also footpaths at cemetery, for Whitstable and Whitstable-cum-Seasalter Joint Burial Committee. A. A. Kemp, architect, 9, Tower-parade.

APRIL 5.

***Bermondsey.**—Additions Hospital.—Additions to X-ray and massage departments, and glazing corridors at the Bermondsey and Rotherhithe Hospital, Lower-rd., Rotherhithe, for Bermondsey Guardians. Henry H. Reeve, clerk, 283, Tooley-st., S.E.1. Dep. £5 Bank of England Note.

***Bermondsey.**—Steam Pipes.—Providing and laying steam pipes from the main boiler-house to the receiving wards of the Ladywell Institution, Ladywell-rd., S.E.13, for the Guardians of the Parish of Bermondsey. Henry H. Reeve, clerk, 283, Tooley-st., S.E.1. Dep. £5 Bank of England Note.

***Bexleyheath.**—Sanitary Conveniences for Men.—Erection and completion of, at Danson Park, Bexleyheath, for the Bexley U.D.C. W. T. Howse. Surveyor, Council Offices, Bexleyheath. Dep. £1 1s., by cheque.

Sheffield.—Demolition.—Erecting hoarding and pulling down buildings in Abney-st., Portobello, for University. Gibbs & Gibbs, architects, 15, St. James'-row.

APRIL 6.

***Bradford.**—Heating, Hot Water, etc.—(1) Installation of a low-presure heating system and hot-water service; (2) installation of a continuous swimming bath purification plant at the Thornton District Baths, for the Bradford Corporation City Architect, Town Hall, Bradford.

Eccles.—Houses.—For 68 non-parlour at Anson-st., Westwood Park estate; and 14 non-parlour at Lane-end, for T.C. T. Eice, M.Sc.Tech., B.E. and S. Dep. £2 2s.

London.—Transforming Stations.—Construction of site works, foundation works, and buildings for 66,000 volt transforming stations at Hackney, Shoreditch and Islington, for the Central Electricity Board. J. R. Brooke, Secretary, Trafalgar-buildings, 1, Charing Cross, W.C.2. Dep. £2 2s.

Maesycwmmer.—Church.—Proposed "Church of England," for Trustees and Building Committee. H. Gabe Jones, architect and surveyor, Bank-chambers, Hengoed, Glam. Dep. £3 3s.

APRIL 8.

Clutton.—Cottages.—8 non-parlour, at Chew, Stoke, for R.D.C. Thomas & Morgan, architects, 23, Gellwastad-rd., Pontypridd. Dep. £3 3s.

Deptford and Greenwich.—Dwellings.—Erection of a block at Hughes Fields estate (Watergate-st. area), Deptford and Greenwich, for the L.C.C. Architect to the Council, The County Hall (Room No. 3), Westminster-bridge, S.E.1. Dep. £2.

***Hove.**—Houses.—Erection of 50, on the housing estate at The Knoll, Old Shoreham-rd., for the B.C. Borough Surveyor's Office, Town Hall, Hove. Dep. £3 3s.

***Staines.**—Conversion Work.—Converting the Boys' Home into a Nurses' Home, at the Institution, London-rd., Ashford, Middlesex, for the Guardians of the Staines Union. J. H. Tyars, consulting architect, 28, Victoria-st., Westminster, S.W.1.

APRIL 9.

***Romford.**—Alterations and Additions.—To the Romford, London-rd. Elementary school, for the Essex C.C. E.C. Jno. Stuart, F.R.I.B.A., C.A., Springfield Old-court, Chelmsford. Dep £1 1s, to F. H. Owers, County Accountant, Duke-st., Chelmsford.

Twickenham.—Telephone Exchange.—Extension of "Popesgrove" Telephone Exchange, Twickenham, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

APRIL 10.

***Croydon.**—Elementary Schools.—(1) Erection of elementary school at Lodge-rd.; (2) enlargement of an elementary school at Cooper-rd., for the Croydon E.C. Education Office, Katharine-st., Croydon. Dep. £1 in respect of each school.

Edlington.—Installation.—Of electric light at Edlington New Middle and Elementary schools and caretaker's house, for West Riding E.C. Education Officer, County Hall, Wakefield.

***Hackney.**—Conversion Work, Cleaning and Painting.—Conversion of two upper floors of the receiving wards into female officers' quarters and certain other work in connection therewith, internal cleaning and painting of the male and female receiving wards at the Central Institution, for the Hackney Union. E. W. Harbour, Clerk, 2, Sidney-rd., E.9.

London.—Telephone Exchange.—Erection of, at Castlebar (Perivale), Ealing, W., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

APRIL 12.

London.—Demolition Work.—At the Letter Office Extension, Mount Pleasant, E.C., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

APRIL 15.

***Bromley, Kent.**—Buildings.—Erection of block for the accommodation of domestic staff at the Institution at Locksbottom, Farnborough. F. Danby Smith, F.R.I.B.A., Parliament-mansions, Victoria-st., Westminster, S.W.1. Dep. £2.

APRIL 16.

Leeds.—Schools.—New secondary schools for Far Headingley, for 1,200 pupils, for E.C. Education Department (Architect's Section), Calverley-st. Dep. £2 2s.

APRIL 20.

***Stoke-on-Trent.**—Extensions.—At the North Staffordshire Technical College, Stoke-on-Trent, comprising laboratories, mine machinery and advanced science rooms, classrooms, etc. The Clerk to the Governors, Town Hall, Hanley, Stoke-on-Trent. Dep. £6 6s.

NO DATE.

Alnwick.—Houses.—12, at Shilbottle Grange, for R.D.C. J. W. Douglas, 1, St. Nicholas-buildings, Newcastle-on-Tyne.

Douglas (Isle of Man).—Power Station.—At Pulrose, for Electricity Committee. J. E. Teare, F.S.I., 46, Athol-st.

Dundee.—Stair Railings.—In connection with Arklay-st. housing scheme, for T.C. G. Baxter, director of housing, 91, Commercial-st.

Dundee.—Works.—Concrete work at Hawkhill (Old) Public school, drainage work at Fairmuir Special school, Kingsway, Downfield, for E.C. Master of Works, Education Office.

Lanark (Lower Ward).—Houses.—46 at Bishopbrig, 30 at Auchinairn (Springfield Lodge), 44 at Farme, Eastfield, 18 at Barnfiat-st., Eastfield, 20 at Chryston, and 40 at Millerston, for C.C. Jas. A. M'Callum, District Clerk, 15, West George-st., Glasgow.

Langley Mill and Aldercar.—Hall.—For Working Men's Club and Institute, Ltd. A. G. Wheeler, architect, Eastwood, Notts. Dep. £1 1s.

Little Twydall.—Bungalows.—Detached bungalows at Ladds Corner. Newman & Hurst, 109, High-st., Gillingham.

Littleborough.—Houses.—48, on Turf House estate, Shore-rd., for U.D.C. A. Travis, architect, Union Bank-chambers, King-st., Rochdale. Dep. £3 3s.

London.—Parish Hall.—Lancaster-rd., Forest Gate, E.7. W. C. Mangan, architect, 18, Guildhall-st., Preston, Lancs.

Lydford.—Hall.—Erection of Nicholls Hall, Lydford Village. F. J. W. Nicholls, Torside, Lydford.

Torquay.—Extensions.—To Babbacombe Cliff Hotel, Babbacombe. H. J. Scoles, architect, Torquay.

Wakefield.—Painting.—Exterior of Grammar school and headmaster's house, for Governors of Wakefield Grammar School Foundation. G. Beaumont, clerk to Governors, 11, Market-st.

MATERIALS, etc.

MARCH 25.

Barry.—Building Materials.—For U.D.C. E. R. Hinchsliff, S.

Beckenham.—Paving.—Artificial stone paving, for U.D.C. H. Storr Best, S.

Birkenhead.—Paints, etc.—For B.G. S. R. Carter, clerk, Conway-st.

Dover.—Ragstone.—For R.D.C. C. W. Whitewood, S., River View, London-rd.

Edinburgh.—Special Pipe Castings.—For Water Dept. J. and A. Leslie and Reid, engineers, 20, Waterloo-place.

Halifax.—Builders' Materials, etc.—For B.G. A. T. Longbotham, Clerk, Union Offices, Carlton-st.

Ilkeston.—Granite, etc.—For Corporation. B.S.

Kettering.—Road Materials.—For U.D.C. J. P. Haugh, S., Market-place.

King's Lynn.—Granite Chippings, etc.—For T.C. J. C. Matthew, B.E.

Knaresborough.—Tar, etc.—For R.D.C. F. Rogers, clerk.

Lanark (Middle Ward).—Road Materials.—For D.C. of C.C. W. E. Whyte, District Clerk, Hamilton.

Normanton.—Road Materials.—For U.D.C. S.

Rugby.—Refined Tar.—For U.D.C. J. H. Sharp, S.

Rugby.—Stone, etc.—For U.D.C. J. H. Sharp, S., Benn Buildings.

MARCH 26.

Drighlington.—Tarmacadam.—For U.D.C. H. Robertshaw, clerk.

Great Crosby.—Highway Materials.—For U.D.C. J. A. Wright, S.

Hazel Grove and Bramhall.—Stone, etc.—For U.D.C. S.

Lanchester.—Road Materials.—For R.D.C. W. Cumming, S.

Leatherhead.—Tar.—For U.D.C. S. R. Drake, S.

Malling.—Road Materials.—For R.D.C. H. Vickery, Highway Surveyor, West Malling.

Pembroke.—Macadam, etc.—For U.D.C. S.

Thame.—Tarmacadam.—For U.D.C. J. T. Robinson, S.

MARCH 27.

Isle of Thanet.—Road Materials.—For R.D.C. G. L. Butterworth, S., Station-rd., Birchington.

Tamworth.—Road Materials.—For R.D.C. H. L. Kent, E. and S.

MARCH 28.

Chatham.—Macadam, etc.—For T.C. R. L. Honey, B.E. and S.

Egypt.—Portland Cement.—For Egyptian Ports and Lighthouses Administration. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X. 5117.)

Kenilworth.—Road Materials.—For U.D.C. S. Douglas, S.

Monmouthshire.—Tarred Macadam.—For C.C. S. A. Bennett, C.S., County Hall, Newport (Mon).

MARCH 30.

Bishopthorpe.—Highway Materials. For R.D.C. C. C. Lucas, Clerk, 6, New-st., York.

East Ashford.—Granite, etc.—For R.D.C. J. T. Pullen, S., St. Leonard's Lodge, Sevington.

Broadstairs and St. Peter's.—Pipes.—2,150 lin. yds. of 8 in. diameter cast-iron pipes and various specials, for U.D.C. S.

Edinburgh.—Builders' Materials.—For Rosslynlee Asylum. Chilton L. Addison-Smith, clerk, 19, Heriot-row.

Haslemere.—Granite, etc.—For U.D.C. C. A. Best. S.

APRIL 1.

Blything.—Road Materials, etc.—For R.D.C. J. W. Yallop, clerk, Bulcamp, Halesworth.

APRIL 3.

Belper.—Granite, etc.—For R.D.C. R. C. Cordon, E. and S.

Hemsworth.—Road Materials.—For R.D.C. W. T. Lynam, S.

APRIL 5.

Glasgow.—Building Materials.—For Gas Department. General Manager, Gas Department, 30, John-st.

APRIL 6.

Maldon.—Granite, etc.—For R.D.C. E. J. Ennals, S.

Milnrow.—Road Materials.—For U.D.C. A. S. Whipp, S.

APRIL 12.

Madras.—Pipes, etc.—15,900 ft. of cast-iron pipes, special castings, sluice valves, etc., ranging in diameter from 12 in to 27 in., for Corporation. J. Mansergh & Sons, agents to Corporation of Madras, India, 5, Victoria-st., Westminster, S.W.1.

APRIL 15.

Loughton.—Limestone, etc.—For U.D.C. H. White, S.

APRIL 16.

Sowerby.—Road Materials.—For U.D.C. J. Eastwood, S.

ENGINEERING, IRON AND STEEL

MARCH 25.

Marple.—Foundations.—Concrete foundations for gasholder and steel tank and boundary walls at gasworks, Marple Bridge, for U.D.C. J. K. Law, Gas Engineer and Manager, Gasworks. Dep. £2.

Redruth.—Sewerage.—Provision and laying of about 22 miles of stoneware and cast-iron pipes, concrete tubes, etc., varying in diameter from 15 in. to 6 in., together with construction of storm overflows, manholes, flushing chambers, and other appurtenant works, in conection with sewerage of parish of Illogan, for R.D.C. J. D. Haworth, consulting engineer, 3, Central-buildings, Westminster, S.W.1. Dep. £5.

Redruth.—Sewerage.—Provision and laying of about 8 miles of sewers, consisting of stoneware pipes and concrete tubes varying in diameter from 18 in. to 6 in., together with the construction of storm overflows, manholes, flushing chambers, and other appurtenant works, in connection with proposed scheme of sewerage, for U.D.C. J. D. Haworth, consulting engineer, 3, Central-buildings, Westminster, S.W.1. Dep. £5.

Rhondda.—Steelwork.—55 tons of bridge steelwork, for U.D.C. E. Taylor, E. and S.

Wellingborough.—Drainage.—460 lin. yds. or thereabouts of 6-in. diameter stoneware pipe sewers, together with manholes, ventilating columns, etc.,

alterations to existing tanks on present sewage outfall site, construction of pump chamber and motor house, concrete storm water tanks, detritus and settling tanks, filter beds and humus tanks; and sludge lagoons, together with pumping machinery, for R.D.C. H. G. Gordon, E., 18, Oxford-st. Dep. £5.

MARCH 25.

Morecambe and Heysham.—Widening.—For promenade between Central Pier and Tower, including extensive sea walls, for T.C. P. W. Ladmore, B.E. Dep. £5 5s.

MARCH 28.

Birkenshaw.—Additions.—Also alterations to Nutter-lane sewage works, for U.D.C. C. H. Marriott, Son & Shaw, engineers, Church-st.-chambers, Dewsbury. Dep. £2 2s.

Glasgow.—Bridge.—Steel plateweb girder bridge, of one span of 28 ft. 6 in. measured at right angles to abutments (80 ft. wide between parapets), including abutments, wingwalls and steel trough decking, over L. and N.E.Rly., for T.C. D. A. Donald, engineer, 271, Alexandra-parade. Dep. £3 3s.

MARCH 30.

Coleraine.—Reconstruction.—.—Also repair of Bann Navigation Works at mouth of River Bann, for Harbour Commissioners, Henderson & Nicol, chartered civil engineers, 21, Bridge-st., Aberdeen. Dep. £3 3s.

Portrush.—Sewerage.—Laying of additional sewers and construction of retention tank and an outfall sewer, for U.D.C. A. J. Clarke, Town S. Dep. £2 2s.

APRIL 2.

Braintree.—Sewerage.—Provision and laying of about four miles of sewers, consisting of glazed stoneware and cast-iron pipes, varying in diameter from 12 in. to 6 in., together with storm overflow chambers, manholes, flushing chambers, and other appurtenant works, in parishes of Kelvedon and Feering, for R.D.C. J. D. Haworth, consulting engineer, 3, Central-buildings, S.W.1. Dep. £5.

APRIL 3.

Bingley.—Piles.—Driving of reinforced concrete piles to foundations of new extensions at Grammar school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Havant.—Extensions.—Laying of sewers at Drayton and Farlington and for construction of additional tanks, filters, etc., at sewage disposal works at Drayton, for R.D.C. W. L. Hibberd, S., West.-st. Dep. £5 5s.

APRIL 8.

Barry.—Reservoir.—Concrete service reservoir, together with short lengths of cast-iron pipes, for U.D.C. E. Sandeman, consulting engineer, 15, Victoria-st., S.W.1. Dep. £5 5s.

Hornsea.—Wall.—Sea wall, esplanade, road and three groynes, for U.D.C. Lewis & Lewis, engineers, 15, Victoria-st., Westminster, S.W.1.

Melbourne.—Towers.—Galvanised steel transmission line towers, for State Electricity Commissioners of Victoria. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 7401.)

APRIL 9.

Sutton-in-Ashfield.—Weir.—Concrete overflow weir 100 ft. long, and other works of repair at King's Mill reservoir, for U.D.C. F. W. Hodson, consulting engineer, Bank-chambers, Loughborough Dep. £3 3s.

APRIL 11.

Guernsey.—Filter Beds.—For States of Guernsey Water Board. T. & C. Hawksley, civil engineers, 34, Old Queen-st., S.W.1. Dep. £3 3s.

APRIL 13.

Chapel-en-le-Frith.—Reservoir.—Service reservoir, together with valves, fittings, etc., for R.D.C. Brady & Partington, engineers, Market-st. Dep. £5.

APRIL 16.

Kilkenny.—Drainage.—Construction of septic tanks and outfall, with 1,000 yds. of 21 in. dia., intercepting sewer, syphon pipe under River Nore, with about 2,000 yds. of 18 in., 15 in. and 12 in. main sewers and 4,000 yds. of 9 in. local sewers and house connections, manholes, vent shafts, etc., for U.D.C. Pierce F. Purcell, consulting engineer, Ashton, Killiney, Co. Dublin. Dep. £10.

NO DATE.

Caernarvonshire.—Bridge.—(*a*) Construction of section of new road, including cuttings, embankments, culverts, drains, walls and fencing, and other works relative thereto, at Dolgarrog; and (*b*) ferro-concrete bridge, Dolgarrog, for C.C. T. Owen, P.A.S.I., C.S., Caernarvon. Dep. £5 5s.

ROAD, SEWERAGE, AND WATER WORKS

MARCH 25.

Beckenham.—Resurfacing.—With asphaltic material several highways, for U.D.C. H. Storr Best, S Dep. £5.

Beddington and Wallington.—Sewerage.—700 ft. of 33-in. dia. and about 8,500 ft. of 24-in. dia. concrete tube surface water sewers, together with works appurtenant thereto, for U.D.C. S. F. R. Carter, E. and S., Council Offices, Wallington.

Edinburgh.—Sewers.—In Deanpark and Blinkbonny (Trinity Hospital), for T.C. B.E.

Esher and The Dittons.—Drain.—384 yds. run of 9 in. cast-iron sewer, and approximately 384 yds. run of 9 in. stoneware pipe surface water drain, together with brick manholes, gullies, connections, etc., in More-lane, for U.D.C. E. and S.

Esher and The Dittons.—Drain.—Laying of approximately 394 yds. run of 18 in. stoneware pipe surface water drain, together with manholes, house and gully connections, and other appurtenant works, in Hare-lane and Aston-rd., Claygate, for U.D.C. E. and S.

Halstead.—Sewer.—Laying of 145 yds. of 6 in. diameter glazed pipe sewer, 150 yds. of 3 in. diameter cast-iron water main, excavation for new road and supply of hard core for foundations thereof, for U.D.C. W. Nicholson, S.

Ilford.—Making-up.—Of Mortlake-rd. (part of), Cavenham-gardens, Golfe-rd. (part of), Sandyhill-rd., St. Luke's-av., for T.C. B.E. and S. Dep. £2 2s.

Mitcham.—Making-up.—Of Meopham-rd. (in concrete), and Bond-rd. (partly in tarmac and partly in concrete), for U.D.C. S., Broadway House, Lower Mitcham.

Welwyn.—Mains.—Laying of approximately 4,900 yds. of 3-in. and 2-in. cast-iron water mains, together with valves, hydrants, etc., and for tapping of mains and laying supply pipes to premises, on Oaklands estate, for R.D.C. C. B. Borthwick, S. Dep. £2 2s.

West Sussex.—Surface Tarring.—Of approximately 900,000 sq. yds. of main roads with refined tar, for C.C. H. W. Bowen, C.S.

MARCH 26.

Grimsby.—Streets.—Freemen's Estate, 600 lin yds. of new streets, 36 ft. in width, of tarred macadam on chalk foundation, with artificial flagged footpaths and York stone kerbs and channels, for C.B. J. W. Jackson, T.C. Dep. £2 2s.

Hambleden.—Mains.—Two small extensions of 3 in. water mains, 100 yds. run, at White-lane, St. Martha's, and 220 yds. run at Woodhill-lane, Shamley Green, for R.D.C. P. G. Williams, S.

Kingston.—Repairs.—To carriage ways, footways, and yards, etc., at Kingston and District Hospital and Central Relief Institution, for B.G. W. Taylor, Clerk.

MARCH 27.

Bridport (Dorset).—Asphalt.—Laying approximately 5,888 super. yds. of 2 in. asphalt, and necessary preparatory work, for T.C. R. N. Armstrong, B.S.

Buckhurst Hill.—Reconstruction.—Of the sewage works, taking up about 500 yds. of brick barrel sewer and substituting glazed stoneware pipe sewer, and for laying about 400 yds. of other sewers in the district, for U.D.C. Tooley & Foster, engineers, Warwick House.

Finchley.—Making-up.—Of Waverley-grove (first portion), Trinity-av., Talbot-av., Elmhurst-av., St. Mary's-av. (second portion), Cyprus-av. (second portion), for U.D.C. P. T. Harrison, E., 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep. £3.

Huddersfield.—Streets.—New streets and sewers on Manor-st. housing site, for C.B. B.E. and S., 1, Peel-st.

Hull.—Sewers.—400 yds. concrete sewers in Beverley-rd. and Endyke-lane, for T.C. T. Thomas, City E.

North Dublin.—Drains.—Surface water drains and gully traps on Howth-rd., Killester, for R.D.C. J. P. Conry, clerk, 1 and 2, Cavendish-row.

MARCH 28.

Glasgow.—Sewers.—Roads and sewers in Altyre-st., for T.C. D. Stenhouse, T.C.

MARCH 30.

Bute.—Improvements.—For (1) resurfacing approximately one mile of road, Port-Bannatyne to Ettrick Bay; (2) spraying and chipping road from Pointhouse Burn Boundary to Port-Bannatyne War Memorial; (3) spraying and chipping Ascog-rd. from Millhole Boundary to Kerrycroy, for D.C. David Arnot, District Clerk, County Office, Rothesay. Dep. £1.

Dublin.—Spraying.—Also gritting of, approx. 500,000 sq. yds. of roadways with Spramex, tar or cold bituminous applications, for C.B. C. J. Sherlock, T.C.

East Preston.—Surface Tarring.—Of 120,000 sq. yds. of roads, for R.D.C. S.

Silsden.—Improvements.—Of Howden-rd., for U.D.C. S.

West Sussex.—Reconstruction.—Of part of Brighton-Portsmouth main road, at Worthing, including concrete foundations, kerbing and drainage, for C.C. H. W. Bowen, C.S., Southgate House, Chichester, Dep. £2.

APRIL 2.

Amersham.—Drainage.—Laying of about 1,800 yds. of surface water pipe drainage in varying diameters of 6-in. to 18-in., 130 yds. concrete duct, together with contingent works at High-st. and Back-lane, Chalfont St. Giles, for R.D.C. S. Dep. £2 2s.

Chepping Wycombe.—Extensions.—3,000 yds. 6 in. sewer, 4,000 yds. 9 in. sewer, and 800 yds. 12 in. sewer, with manholes, etc., for T.C. T. J. Rushbrooke, B.S. Dep. £1 1s.

Hastings.—Making-up.—Of Beaconsfield-rd., for T.C. S. Little, B.E. Dep. £1 1s.

APRIL 3.

Clacton.—Making-up.—Of College-rd. and Douglas-rd., for U.D.C. Wm. Aiston, S.

APRIL 4.

Sunbury-on-Thames.—Making-up.—Of Harfield-rd., for U.D.C. H. F. Coales, E. and S. Dep. £2 2s.

APRIL 5.

Watford.—Making-up.—Of Chilcott-rd., Comyne-rd., Desmond-rd. and Rosebriar-walk, for T.C. W. W. Newman, B.E. Dep. £2 2s.

APRIL 6.

Stretford.—Paving.—In rock asphalt, Derbyshire-av., Derbyshire-crescent, Derbyshire-grove, for U.D.C. Ernest Worrall, S. Dep. £2 2s.

APRIL 8.

Blaby.—Drainage.—1,100 yds. of 9 in. pipe sewers, together with manholes, and other works, in Glen Parva, for R.D.C. Pick, Everard, Keay & Gimson, engineers, 5, Millstone-lane, Leicester.

Blean.—Making-up.—Beaconsfield-rd., for R.D.C. F. A. Ward, S. and E. Dep. £1.

Essex.—Mains.—Laying and jointing of 3,757 lin. yds. of 20 in. main, together with connections and contingent works, from Woodford pumping station to point near Buckhurst Hill reservoir, for M.W.B. G. F. Stringer, clerk, 173, Rosebery-av., E.C.1. Dep. £10.

London.—Paving.—Forming and paving portion Cresswell-park, Blackheath, for Greenwich B.C. B.E. and S.

APRIL 10.

Merton and Morden.—Improvements.—(1) Widening Coombe-lane (2) 12 in. sewer, Cannon Hill-lane; (3) 18 in. surface water sewer, High-path, etc., for U.D.C. G. Jerram, E. and S. Dep. £1 each.

APRIL 11.

London.—Paving.—Providing and laying bituminous surfacing material, etc., in Fulham-rd.—Arthur-st. to Sydney-place; Ladbroke-grove—Great Western Railway Bridge to Kensal-rd.; Vicarage-gate—opposite Inverness-gardens at junction with Brunswick-gardens; Addison-rd.—Kensington-rd. to south-west section of Addison-crescent; and Marloes-rd.—Scarsdale-villas to Cromwell-rd., for Kensington B.C. B.E.

Wilts.—Reconstruction.—Realigning, strengthening and surfacing with asphalt and asphaltic macadam a total length of approximately 10 miles of main road, for C.C. H. S. Ganderton, C.S., Trowbridge. Dep. £5.

APRIL 15.

Dunstable.—Paving.—Also surfacing Blows-rd., Borough-rd., Downs-rd., Grove-rd., Park-rd., and Capron-rd., for T.C. W. F. Wilkins, B.S.

London.—Paving.—2 in. mastic asphalt paving on reinforced concrete foundations in Half Moon-lane (part of), and Village-way, for Camberwell B.C. W. Bell, B.E. and S.

Auction Sales, Tenders, etc.

MARCH 25.

★**London.**—Newton & Co. will sell, at 89, Gray's Inn-rd., W.C., the plant of a builder. Auctioneers, 27, Chancery-lane, W.C.2.

MARCH 26.

★**Bethnal Green.**—Seymour Granard will sell, on the premises, 96, 97 and 98, Railway Arches, London-st., Bethnal Green, E.1, various building materials, paints, oils, electrical goods, office furniture, etc. Auctioneers, 28, Fore-st., E.C.2.

MARCH 27.

Hitchin.—Charles R. Davis & Co. Under a Deed of Assignment, re S. H. Palmer. By order of the Trustee, E. H. Hawkins, F.S.A.A. Sale of the whole of the stock, plant and machinery of a builder and contractor, including stock of imported timber. Auctioneers, 285, Borough High-st., London, S.E.1.

★**Huntingdonshire.**—Dilley, Theakston & Read have received instructions from the Exors. under the will of the late Mr. G. T. Page, to sell, at the "George" Hotel, Huntingdon, Buckden, Huntingdonshire, the old-established builder's premises, together with the goodwill of the business. Auctioneers: Market-hill, Huntingdon, St. Ives and St. Neots.

APRIL 1.

Aldershot.—Disposal of Plant.—Purchase of the building plant used in connection with the completion of housing schemes. Borough Surveyor, Municipal-buildings, Aldershot. Endorsed "Tender for Building Plant."

Public Appointments

MARCH 25.

County Down.—Quantity Surveyor and Quantity Surveyor's Assistant required by the Down County Regional E.C. David C. Quail, Dir. of Edu., 27, Great Victoria-st., Belfast.

APRIL 2.

★**Bridgwater.**—Clerk of Works (temporary) required by the Bridgwater T.C. in connection with reconditioning of Market House, erection of shops and public conveniences. Hugh P. Bishop, A.M.I.C.E., B.E., Town Hall, Bridgwater.

APRIL 3, 4, 5.

London.—London Building Act, 1894.—District Surveyors at a London Centre, an examination of persons presenting themselves for the purpose of being examined for duties of District Surveyors. Clerk of the Council, the County Hall, Westminster Bridge, S.E.1.

APRIL 9.

London.—Knight, Frank & Rutley will sell (unless previously sold privately), in the Hanover-sq. Estate Room, the Freehold Wickham Hall Estate, West Wickham, Kent, with vacant possession on completion of the purchase. Auctioneers, 20 Hanover-sq., W.1.

APRIL 10.

★**Lewisham.**—Clerk of Works required by the Lewisham B.C. in the Borough Surveyor's Department. John W. Shuter, T.C., Town Hall, Catford, S.E.6.

MAY 23.

London. — Forthcoming Examingation. — Male Cartographers in the Hydrographic Department of the Admiralty. The Secretary, Civil Service Commission, Burlington-gardens, W.1.

NO DATE.

★**London.**—Architectural Assistants required in H.M. Office of Works. Chief Architect, H.M. Office of Works, Storey's-gate, S.W.1.

★**Southall.**—Assistant Master to teach building subjects required by the Middlesex E.C., at the Southall Junior Technical School. H. M. Walton, Secretary, Education Offices, 40, Eccleston-square, S.W.1.

★**Tanganyika.**—Industrial Instructors (2) required by the Government of Tanganyika Territory for the Education Department. Apply at once, Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/1394.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education, M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.: Engineer, E.: Borough Architect, B.A.: Architect, A.

Albury.—Council considered question of erection of further houses on surplus land in north and south wards, and recommended that particulars be got out for erection of further 100 to 115 houses in each ward.—On recommendation of Works and General Purposes Committee, plan and estimate for maternity and child welfare centre in north ward approved, and it was decided to obtain tenders for carrying out work and to make application to M.H. for sanction to raise £1,900.

Alderley Edge.—U.D.C. propose garage. Plans by S.

Axminster.—R.D.C. is to purchase land at Colyton for houses.

Bath.—Municipal Committee approved amended proposals by City E. for re-housing scheme on Dolemeads area.

Bedford.—Kempston Parochial Church Committee proposing church at Kimberley. No architect yet appointed.

Blackpool.—C.B. are to build 7 passenger shelters.—C.B. resolved that palisade wall with iron railing be erected at Watson-rd. recreation ground—B.S. is to prepare plans and invite tenders for buildings in Caroline-st.—Plans passed: 6 houses and shops, Abbey-rd., P. W. Emery & Son; 8 houses, Cavendish-av., R. Brown & Son; 6 houses, College-av., Fielden & Dawson; 11 houses, Starbeck and Lyndhurst-av., C. Harding & Sons; 14 houses, Dalewood-av., T. F. Mercer; 14 houses, Lauderdale-av., R. & H. Fletcher, Ltd.; 8 houses, Sunnybank-av., J. Ridyard.

Blackpool.—Mather, Son & Wilding, Birley-st., architects for improvements to Bloomfield Hospital, for A. T. Mevis.

Bloan.—Surveyor to R.D.C. prepare plans for additions to administrative block, Isolation Hospital.

Bournemouth.—T.C. are to proceed with plans for a new council chamber.

Brighton.—Board Diocesan Training College prepare scheme acquisition of land and erection of residential quarters and college hall.

Bromley, Kent.—T.C. approve 9 houses in Bourne-rd. for E. Tyler. Mr. A. Frampton proposes 24 shops in Widmore-rd.

Bude.—U.D.C. approved plans swimming pool on Summerleaze Beach.

Caernarvon.—M.H. sanctioned £10,000 for converting prison into county offices, for C.C. Ministry approved establishing clinic part of conversion scheme.

Cambridge.—Victoria kinema and cafe, Market-hill, acquired by Cambridge Electric Supply Co., Ltd., for reconstruction as head offices and show-rooms. Architects, North, Robin & Wilsdon, FF.R.I.B.A., Townsend House, Greycoat-pl., S.W.1.

Cardiff.—Addition to St. Illtyd's College, Courtaney-rd., Cardiff. Plans by W. Ellis, architect, 49, Deansgate, Manchester.

Carlisle.—State Management Liquor Control Authorities proposing rebuild Cumberland Hotel. Plans by H. Redfern, architect, company's offices, Tattington-st., S.W.1.

Carlisle.—T.C. decided that new open-air school built at Newtown, and present open-air school be utilised as junior school.

Caterham.—U.D.C. approve:—8 pairs cottages, Stafford-rd., for C. Baines; 12 houses, Salmons' estate, T. W. Stuchberry.

Chatham.—Royal Engineers' Park be extended by founder's shop, at £2,000.

Colchester.—Extensions at electricity station at Hythe, involving £28,710, passed by T.C.

Coleshill.—Licensing Justices sanctioned rebuilding Tyburn House, Tyburn, Ansell's Brewery, Aston, Birmingham. Plans by Bateman's, architects, 18, Bennett's Hill, Birmingham. Estimated cost £20,000.

Coulsdon and Purley.—U.D.C. authorised advertisements for erection of council offices.—Plans passed.—Clout & Tysoe, Ltd., 8 houses and garages, Victoria-av. and Norman-av., Sanderstead; A. E. Yeowart, 7 houses, Westwood-rd., Hooley House estate, Coulsdon.

Coventry.—T.C. passed plans:—22 houses, Narrow-lane, for Ives & Rushby; 12 houses, Max-rd., for F. Shaw; 8 houses, Newfield-rd., for J. C. Gray; 3 houses with shops, Holbrook-lane, for A. C. Maiden; 7 houses, Marriott-rd., for F. A. Sutton; alterations to "Malt Shovel" public-house, Spon End, for S. Allsopp & Sons, Ltd.; 28 houses, Elm Tree-av., and 2 houses, Pine Tree-av., for Lime Tree Park Building Estates Co., Ltd.; 28 houses, Barkers' Butts-lane, for R. Matlocks; extension of works, Britton-rd., for Triumph Motor Co., Ltd.; 16 houses, Christchurch-rd., for F. J. Sutton; sub-station, Radford-lane, for Electricity Department; 8 houses, Elm Tree-av., for L. Male; 6 houses, Beresford-av., and 6 houses, Churchill-av., for W. R. Lane.

Doncaster.—E.C. are to acquire land for extensions to Technical school; 18 additional houses are to be erected in connection with Church-lane improvement scheme.—Sanction been received for borrowing of £15,814 in respect of new infectious diseases hospital and sanatorium.—A shelter is to be erected in children's corner at Elmfield-park, at £200, and weather windscreen at £120.—E.C. approved erection of school at Intake, at £18,000.—Allen & Hickson, LL.R.I.B.A., 51, Hall Gate, architects for extensions to casual wards at Institution, for B.G.—New Council elementary school is to be erected at Intake, at £24,000.—E.C. have acquired site adjoining Technical College for extensions.

Droylesden.—Walker & Homfrays, Ltd., Woodside Brewery, Eccles New-rd., Salford, proposing improvements to "Gardners Arms," Edge-lane, Droylesden. Plans by Col. G. Westcott, architect, 13, Bridge-st., Manchester. Estimated cost £2,000.

Dublin.—Inquiry held into application of City Commissioners to build blocks of flats in two areas, Mary's-lane and Church-st. area, other on site off Sir John Rogerson's-quay.

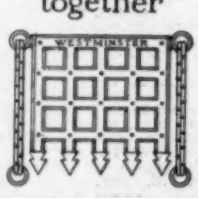
Ealing.—T.C. passed plans:—Ealing-green, office and garage, for Kingham & Chapman; architects, Hall-Jones & Dewhirst; Broomfield-rd., extension of men's mess and covered yard (distributing depot), for United Dairies, Ltd.; Keat's-way, 58 houses, for G. Wimpey & Co., Ltd.; architect, H. S. Bostock, Broadway-chambers, Southall; also Mansell-rd., 6 houses, Greenford-rd., 16 houses, for W. J. Langbridge & Co., Ltd., Parkfield-gardens, Headstone-lane, Harrow; Halsbury-rd. West, 13 houses and Clanson-av., 9 houses, for Foundation Co., Ltd., Aldwych House, W.C.2; Abbey-rd., additions to factory, for Electro Flow Meters Co.; architect, R. H. Radburn, 33a, Broadway-chambers, Acton, W.3; Waxlow-rd., additions to factory, for H. J. Heinz & Co., Ltd.; architects, Hal Williams & Co., Factory House, 79 and 80, High-holborn, W.C.1; Audley-rd., 8 houses, for Haymills, Ltd., 7, Grand-parade, Forty-lane, Wembley; Hurley-rd., 7a houses, for Wimpey & Co., Ltd.; Western-rd., petrol filling station, by Perivale-lane, for Electric Petrol Services, Ltd.; architects, J. L. Kelf, 95, Sudbourne-rd., Brixton Hill, S.W.2; Audley-rd., 5 houses, for Haymills, Ltd., 1, Grand-parade, Forty-lane, Wembley; The Green, shop and flats; architect, G. E. Nield, The Outer Temple, Strand, W.C.2.—2, Broadway, W.13, alterations, for Ushers Wiltshire Brewery, C. F. F. Kimber, architect, 50, Avenue-rd., Trowbridge; 77-83, Broadway, W.13, alterations for F. W. Woolworth & Co., Ltd.; Horsendon-lane, water tower, for A. Sanderson & Son, A. S. R. Ley & Son, architects, 214, Bishopsgate, E.C.2.

Falmouth.—B.S. to prepare plans, etc., for housing scheme at Penwerris.

Garstang.—E.C. to acquire Old Grammar School conversion into cookery and handicrafts centre.

Halifax.—T.C. resolved that plans be prepared for erection of High school for 300 girls on Craven Lodge estate, also for alteration and adaptation of premises of Secondary school in Prescott-st. to the needs of a modern school for 400 boys and girls; and that such plans be submitted to B. of E. for approval.

"2 Firms working together"



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Hardingstone.—Phippe & Co., brewers, Northampton, plans prepared rebuilding of "Crown Inn" public house.

Harrogate.—B. of E. approved, so far as educational requirements are concerned, plans of new buildings in connection with secondary school, for West Riding E.C.

Haslingden.—T.C. considering 12 houses at Stonefold. Also at Longshoot.

Haslingden (Lancs).—T.C. erect Municipal Offices at £6,000. Plans by B.S.

Hastings.—Reservoir, T.C. agreed to, cost £120,000.

Hove.—Electricity Commission propose £2,900 sub-station near cemetery.

Hove.—T.C. approved £30,000 new elementary school on Knoll estate.—Construct a sea wall on Western Esplanade, at £21,200.—T.C. passed plans: E. Gladman & Son, 10 houses and 6 garages, Portland-av.; S. H. Tiltman, for T. Harington, factory, Old Shoreham-rd.

Hyde.—Plans passed: 26 houses, Bedford-av. and Repton-av., for F. Lord.

Ilford.—T.C. passed plans:—T. Anders, 14 lock-up garages, Grasmere-gardens; Haines & Warwick, 12 houses, 398/420, Ley-st.; A. Smith, 17 houses and garages, 33/56 and 46/54, Collinwood-gardens; E. Meredith, 8 houses, Tomswood-rd.; F. Stimpson, 6 houses and garages, 11/21, Highcliff-gardens; J. Aldridge (Suburban Developments (London), Ltd.), 113 houses, 19/55 and 18/46, Otley-drive, 13/51 and 14/66, Headley-drive and 7/38, Feistead-gardens, Eastern-av.; T. F. Ingram, rebuilding of "The Red House," corner of Eastern-av. and Redbridge-lane; T. Anders, 7 houses and garages, 146/158, Pembroke-rd.; J. W. Lohden, 18 houses and garage, 2/56, Charter-av.; J. Aldridge (Suburban Developments (London), Ltd.), store, Uppark-drive, for Geo. E. Gray, Ltd.; C. W. Ward, 6 houses, 22/32, Claremont-gardens.

Ilfracombe.—Extensions to generating station of Ilfracombe Electricity Co. Architects, North, Robins & Wilsdon, FF.R.I.B.A., Townsend House, Greycoat-pl., S.W.1.

Keighley.—Plans prepared by County Architect for building in connection with Keighley Institute.

Keighley.—West Riding C.C. recommend £2,150 in widening on its western side Eastburn bridge, which carries Keighley and Kendal main road over Eastburn Beck, at Eastburn. West Riding E.C. recommend that revised plans for erection of buildings at Keighley Drake and Tonson's school, involving a total estimated expenditure of £49,950, be approved.

King's Lynn.—M.H. sanctioned T.C. land for 22 houses Loke-rd. estate, 32 houses South Lynn.

Leeds.—Improvements Committee invite tenders for 48 cottage flats and 14 houses.

Leigh.—T.C. passed plans: Alteration to Central Premises, Bradshawgate, Leigh Friendly Co-operative Society, Ltd.; 14 houses, off Jean-av., Pennington Land & Development Co., Ltd.; 12 houses, Brookfield-st., T. Collier & Sons.

Linthwaite.—Council received M.H. sanction for eleven houses, Wiggin Cross, at £4,066.

Littleborough.—British Visada, Ltd., Pyethorne Mills, proposing extensions to mill. Plans by Potts & Hennings, A. & F.R.I.B.A., architects, 24, Victoria-st., Manchester.

London (Hackney).—B.C. passed plans:—T. Gates & Sons, lock-up garages, etc., Wellington-rd.; Gee, Walker & Slater, Ltd., 5 blocks of flats, Southwold-rd.; B.E. and S., branch baths, Gayhurst-rd.

London (Islington).—L.C.C. recommend borrowing by B.C. of £24,100 for housing.

London (Stoke Newington).—B.C. received sanctions, £30,000 swimming baths, and £4,050 heating filtration, etc., from M.H.

London (Wandsworth).—B.C. passed plans: Grace & Marsh, Ltd., building, Grange Mills, Grove-rd., Balham.

Loughborough.—T.C. propose £20,000 fire sta...on at Swan-st.

Lowestoft.—Scheme B.S. protection of South Beach from South Pier to Claremont Pier, at £4,450, been approved.

Manchester.—Corporation propose 300 houses on site at Moston.—Groves & Whitnalls, Ltd., brewers, Regent Brewery, Salford, plans approved hotel at Littleton-rd., Lower Kersal. Charles Clegg & Son, architects, 30, Brown-st.

Manchester. — J. W. Beaumont & Sons, FF.R.I.B.A., architects, 24, Brazenose-st., preparing plans for extensions in Deansgate of Kendal, Milne & Co. (Harrods), Ltd. Estimated cost over £500,000.—Watch Committee passed plans for central police offices. Site will be old fire station at Jackson's-row, bounded by South-st. and Bootle-st.

Mansfield.—Governors of Brunt's School propose ing a scheme estimated to cost £12,000. Plans by Vallance & Westwick, A.R.I.B.A., White Hart-chambers.

Mitcham.—U.D.C. passed plans:—G. Cramp & Co., Gatton-rd., S.W., factory, Eveline-rd.; I. H. Wilson, "The Cedars," Commonside, E., 36 houses, Rowcroft-corner; H. Poulson, 6, Graham-rd., lay-out 67 houses, Western-rd.; Chart, Son & Reading, lay-out, New Barns estate; Wates, Ltd., 668, High-rd., S.W.16, 7 houses and shops, Rowan-rd.; I. H. Wilson, "The Cedars," Commonside, E., lay-out of 51 houses, 3 streets, Glebe-path.

Newport (Mon).—C.B. passed plans: Thomas-st., rebuilding Railway Inn, A. Buchan & Co.,

* See also our List of Contracts, Competitions, etc.

The Brewery, Rhymney, per Griggs & Vaughan; St. Julian-rd., 8 houses, Meaker Bros., St. Julian-rd., per Graham, Hitchcox & Co.

Normanton.—Isolation Hospital Committee decided on scheme providing additional accommodation Glass Houghton Hospital.

Northallerton.—New R.C. Church in Thirsk-rd. for Rev. Tils.

Nottingham.—Marks & Spencers, Ltd., Chiswell-st., acquired site, Albert-st., branch with offices above. Architect, A. E. Batzer, A.R.I.B.A., 36, Ebury-st., S.W.1.

Nottingham.—T.C. approved 140 acres of land at Tollerton, at £4,806, for municipal aerodrome.

Okehampton.—M.H. sanctioned acceptance of tender of Okehampton Building Co. for £427 10s., per house for houses at Sourton, for R.D.C.

Oldham.—Simister & Taylor, FF.R.I.B.A., 29, Queen-st., in hand preparation plans proposed extensions to cost £30,000, for Governors, Oldham Royal Infirmary.

Ongar.—Committee of Ongar and District War Memorial Cottage Hospital Fund considering erection cottage hospital as permanent war memorial.

Oxford.—T.C. passed plans:—Prof. Francis de Zulueta, 27, Norham-rd., chapel and lecture-room, Rose-place, rear of Bishop King's-palace, St. Aldate's.

Paignton.—U.D.C. passed plans: 7 detached houses, Marine-parade, S. G. Boultwood; addition of 24 bedrooms, ballroom, bath-rooms and w.c.'s to Palace Hotel, Stearfield-rd., Palace Hotel Co., Ltd.; 20 houses, Marldon-rd., Wallis & Underhay.

Portsmouth.—T.C. passed plans: E. Wright, 22 houses, Madeira-rd.; Dye Bros., 10 houses, Torrington-rd.; R. J. Winnicott, 46 houses, off Teignmouth-rd.; R. J. Winnicott, 10 houses, No. 4 Road, Hilsea; Field & McLaren, 12 houses, Cromp-ton-rd.; Dockyard Employees Housing Association, Ltd., 150 houses, off London-rd., north of Portsbridge Cosham; McCarthy Bros., 23 houses, Langstone-rd.; R. C. Brittan, 11 houses, Copner-rd.; Morey & Flowers, new street, (No. 18) Baffins estate; Brown & Fuller, 12 houses, Madeira-rd.; S. Brittan, 32 houses, Green-lane, Copnor; A. W. Stevenson, 9 houses, Randolph-rd.

Potters Bar.—Committee of Potters Bar Golf Club propose to build garage for 30 cars.

Plymouth.—Chairman, Medical Superintendent and Architect reported, with regard to interview with Board of Control, when plans for extension of mental hospital buildings were further discussed, and T.C. been asked to approve (1) plan for provision of nurses' home as part of the scheme for extension, and (2) application to M.H. for sanction to borrow £19,580.—B.S. submitted, in detailed drawings of proposed new sub-station for further accommodation on site reserved at corner of Saltash-st. and Cobourg-st. Tenders are to be invited for work.—Architect submitted plan and estimate for welfare centre in Devonport-park on site approved by the Council.—Plans passed: J. H. Dyer, 6 houses, Venn-grove; Marks & Spencer, Ltd., shop premises, 19, 20 and 21, Cornwall-st.

Romford.—B.G. to extend and improve the accommodation, Oldchurch Hospital, at £33,000. Architects, Harrington & Evans, Western-chambers, South-st.

St. Albans.—Housing Committee of R.D.C. instructed clerk to apply to Ecclesiastical Commissioners for purchase of about two acres of land at corner of Brewhouse-hill and Down Green-rd., Wheathampstead, and about two acres of land adjoining Frogmore Vicarage, as housing sites. W. B. Nott and W. Vise been authorised to look out for suitable site for additional houses at Redbourn.—M.H. approved proposal to erect further eight houses at Leverstock-green.

Scarborough.—Scarborough Hospital stated that £24,000 given towards hospital off Scalby-rd., estimated at £120,000.

Sheffield.—Dairy at Archer-rd., Millhouses, for Sheffield and Ecclesall Co-operative Society, about £25,000 and £35,000.

Southmolton.—R.D.C. adopted plans for several houses in various parishes.

Staines.—Architect, J. H. Tyars, prepared plans conversion boys' home into nurses' home, for B.G.

Staines.—Plans passed by R.D.C.: Sandell & Wren, 32 cottages and 21 bungalows, Feltham Hill-rd.; Bell Building Co., 6 houses and 3 bungalows, Broadleys estate, London-rd., Stanwell; Robinson Bros., 5 houses, London-rd., Ashford; E. V. Harvey, new service station, etc., and additions to cafe, Bath-rd., Sipson.

Stockport.—Rev. J. Hands, of St. Agnes, Reddish, proposing rectory. Plans by diocesan surveyor, 90, Deansgate, Manchester.

Stoke-Golding.—Restoration work to the Church of St. Margaret, at £1,500.

Stretford.—U.D.C. resolved that application be made to Electricity Commissioners for sanction to borrowing of £78,877 for electricity work.—Application is to be made to M.H. for 16 houses to acre.—Plans passed: 24 houses, Kings-rd. and Marston-rd., for J. G. Whitelegge; factory, Chester-rd., for W. S. Toms, Ltd.; addition to power plant, buildings, Westinghouse-rd., for Southern Oil Co., Ltd.

Sunderland.—Alterations are to be made to premises in Fawcett-st., planned by Marcus Glass, F.R.I.B.A., Saville-row, Newcastle-on-Tyne.

Sunderland.—B.G. building operating theatre in Highfield Hospital. Estimated cost £3,300. Architects, W. R. T. Milburn, 19, Fawcett-st.—Building operations shortly on hospital, for Governors of the Monkwearmouth and Southwick Hospital, Roker-av. Architects, W. & T. R. Milburn, FF.R.I.B.A., 19, Fawcett-st.

Sunderland.—Health Committee decided to recommend T.C. to invite tenders for 196 3 and 4-roomed houses to be built on Ford estate; 68 houses at Southwick; and further 68 houses to rehouse people at present living in Monkwearmouth in No. 3 Slum Clearance area.

Surbiton.—U.D.C. passed plans: 38 houses, Beresford-av., Surbiton Development Co., Ltd.; 121 houses, off Red Lion-rd., J. Cronk & Sons.

Sutton and Cheam.—U.D.C. passed plans:—12 houses, Park-av., off Sutton Common-rd., G. T. Crouch; 24 houses, Banstead-lane, Sutton, W. H. Merrett & Son; 10 houses, Bedford-lane, Cheam, W. J. Lavender; 10 houses, Sutton Common-rd., T. E. Parry; 6 houses in Farm Way, Cheam, Leonard, Davey & Hart; 5 houses, Grennell-rd., Sutton, J. B. & W. B. Hemmings; 32 houses, Sutton Farm estate, W. J. Wyatt; 39 houses, Park Way, off Sutton Common-rd., G. T. Crouch; 12 houses, D'Arcy-rd., and 6 in Churchill-rd., Iles & Stanbury; sports pavilion, London-rd., Sutton, for L.G.O. Co.

Swansea.—C.B. to apply to M.H. for £41,544 for 102 houses on Townhill site.

Taunton.—T.C. approved extension Isolation Hospital at £850.

Tenterden.—R.D.C. contemplate building fifty five-roomed cottages, each containing three bedrooms. Plans, specifications and estimates of cost been advertised for, and Council applied to M.H. for sanction to loan of £20,000 to erect same. Number of houses to be erected in various parishes been decided on as follows: Appledore, 4; Biddenden, 6; High Halden, 10; Newenden, 6; Rolvenden 6; Wittersham, 8; Woodchurch 6; and Stone, 4.

Tiverton.—R.D.C. purchased more sites for houses.

Torquay.—Old Torbay Hospital been purchased by F. E. Bowen, agent to Primley estate, Paignton, for place of amusement, cafe, suites of offices, and residential flats.

Totnes.—T.C. propose houses on land near Darlington-lane, Tollaton.

Tring.—U.D.C. propose £450 convenience.

Ventnor.—T.C. propose further houses.

Walthamstow.—U.D.C. passed plans:—14 garages and office, Field-rd., W. R. Clarke; 10 houses, The Avenue, West Bros. & Pettet; 5 houses, Pentire-rd., A. G. & E. Lucas; factory, Billett-rd., A. G. Tufton; 36 houses and lay-out, Highams estate, Law Land Building Department; 20 l.u. garages, Higham Hill-rd., G. Flint; 12 motor-cycle garages, Brookscroft-rd., Chas. W. Hodgson.

Warrington.—Co-operative Society, Ltd., 15, Cairo-st., model bakery. W. A. Johnson, Architect's Department, Co-operative Wholesale Society, Ltd., 1, Balloon-st., Manchester.

West Hartlepool.—Plans passed by T.C. for R. N. Ripley, 12 houses, Welldeck-rd.; J. Longmore, 7 houses, Wilton-av.

West Riding.—Highways Committee given instructions to C.S. to prepare plans and specifications for new bridge at village of Burn, near Selby, and plans for reconstruction of Haddlesey Bridge, near Selby.

West Riding.—C.C. received notice of following schools to be built:—Doncaster: School for about 500 children at The Intake; one for 280 at Beckett-rd.; and one for 900 at Tickhill-rd. Leeds: School for about 200 children at Cookridge; and one for 200 at Oakwood-lane. York: Enlargement of the Tong Estate Council school by 360 further places.

West Riding.—C.C. are to spend on road, etc., a sum of £225,287.

Westmoreland.—C.C. submitted to M.T. scheme for £20,000 widening Levens Bridge.

Wetherby.—Licensing justices granted application by W. Guy Johnson, of Bradford, for licence in respect of proposed modern hotel to be built on outskirts of Wetherby. It was stated that new hotel will cost £30,000. Messrs. Curtis & Simpson, applicant.

Weybridge.—Governors of Weybridge Hospital had plans prepared for a children's ward, at £5,000.

Wharfedale.—To erect burr and fence walls on north side of road between Caley Lodge and Caley bridge, West Riding C.C. recommend £1,194.

Wigston.—U.D.C. proposing to purchase land on Aylestone-lane, Wigstone Magna, for housing scheme.

Windlesham.—At £3,500, U.D.C. decided that scheme of sewerage be provided for Bee Hill district, and surveyor been directed to proceed with plans.

Windsor.—Eginton & Spink, architects, High-st., prepared plans for rebuilding of Crispin Hotel, Winkfield, for Noakes & Co., Ltd.

Woking.—Council passed plans:—H. Palfant, 4 pairs of semi-detached houses, Highclere estate, Knaphill; Morris Supply Co., showrooms and offices with flat over, Commercial-rd.

Wolverhampton.—T.C. passed plans:—R. Carpenter, 4 houses, Oxbarn estate; Showells Brewery Co., alterations and additions, the "British Queen," Dudley-rd.; Appleton & Grindley, pair of shops with dwelling accommodation, Birches Barn-rd.

Worthing.—Electricity Committee recommend £5,000 alterations to the boiler-house.

Wrexham.—Licensing Magistrates approved scheme for removing Crown Inn, Wern, to new premises proposed to be constructed at corner of the Five Crosses at Llay, at £6,000 to £7,000, for Islands Green Brewery Co., Ltd.

Yeovil.—M.H. sanction £21,250 loan for 50 houses at Seaton-rd. for T.C.

Yeovil.—T.C. accept offer of portion of land adjoining Pen Mill Schools for building. Sanction from Ministry to £21,250 for 50 houses at Seaton-rd.

York.—A scheme being formulated to rebuild existing church of English Martyrs, Blossom-st., at £20,000.

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NEW CINEMAS

Birmingham.—Mr. William K. Anderson, of Sparkhill, proposes to erect a new cinema theatre on a site in Walford-road, Sparkbrook. The plans for the building have been prepared by Mr. A. G. Anderson, 23, Warwick-road, Birmingham.

Bradford.—McLaughlin & Harvey, Ltd., of Highbury-grove, London, have commenced the erection of a super cinema, "The Victoria," Brewery-street, Bradford (which will have a seating capacity of 3,500), for Messrs. Provincial Cinematograph Theatres, Ltd., New Gallery House, 123, Regent-street, London. Mr. William Illingworth, F.R.I.B.A., of Sunbridge-chambers, Bradford, is the architect for the scheme.

Romford.—Work is to commence next week upon the erection of the new "Victory" cinema at the corner of South-street and Western-road, for the New Victory Super Cinema (Romford), Ltd., announced in our issue for October 5. The theatre will provide seating for 1,600 persons, and will also accommodate a café, crush hall, etc. The plans have been prepared by Messrs. Harrington & Evans, Western Buildings, South-street, Romford. The builders are Messrs. W. Sharpin, Wellington-road, Poplar, E.

Stockport.—The local syndicate which has acquired the site in Mersey-square, on which it is proposed to build a super cinema with a seating capacity of 1,800 persons, is having plans prepared by Mr. W. Thornley, L.R.I.B.A., chartered architect, 46, Wallgate, Wigan.

Streatham.—Messrs. Kirk & Kirk, Ltd., Upper Richmond-road, Putney, S.W., have been awarded a £10,750 contract for the rebuilding of the "Golden Domes" cinema at Streatham High-road, details of which were given in our issue for January 18. Mr. J. Stanley Beard, 101, Baker-street, W.1, is the architect.

Wigan.—The Union Playhouses, Ltd., have acquired a site on Manchester-road, Ince, near Wigan, where they propose to erect a new up-to-date cinema which will be known as "The Plaza." Mr. W. Ellis, F.M.S.A., architect, 9, Hardshaw-street, St. Helens, Lancs.

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Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
⅜ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
½ in.	11 0 0	⅞ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under.	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	67½	50	42½	45	52½	55
Water	63½	46½	37½	40	47½	50
Steam	60	42½	32½	35	42½	45
Galv. gas	55	37½	32½	35	42½	45
Galv. water	50	32½	27½	30	37½	40
Galv. steam	45	27½	22½	25	32½	35

C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/3½	11½d.	3½d.
3½ in.	1/4½	1/1½	3½d.
4 in.	1/6	1/3	3½d.
4½ in.	1/7½	1/4½	4½d.
5 in.	1/10½	1/6½	5½d.

O.G. GUTTERS.

3 in.	1/8	1/4½	2½d.
3½ in.	1/8	1/4½	2½d.
4 in.	1/9½	1/4½	3½d.
4½ in.	1/11½	1/7½	4½d.
5 in.	2/4½	1/10½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 ft. Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/10½	1/3 1/9½
2½ in. "	2/0½	1/4½ 2/1½
3 in. "	2/6	1/9 2/7½
3½ in. "	2/11½	2/0½ 3/0½
4 in. "	3/5	2/6½ 3/8½

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Bends, stock Pipe. angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6 fts. plain	3 3	2 4½ 2 10
2½ in. "	3 9	2 7½ 3 7
3 in. "	4 6	2 10 4 2½
3½ in. "	4 11½	3 7 4 11½
4 in. "	5 5½	4 0½ 5 9

L.C.C. COATED DRAIN PIPES—London Price ex Works

	Bends, stock Pipe, angles, s. d.	Branches, stock angles, s. d.
3 in. per yd. in 9ft. lengths	4 4	5 1 8 0½
4 in. " "	4 10	5 8 10 0
5 in. " "	6 6	10 10 17 1
6 in. " "	6 8	13 2 21 9

Gasken for jointing, 38/6 per cwt.

IRON—	Per ton in London. £ s. d.	£ s. d.
Common bars	11 0 0	to 12 0 0
Staffordshire Crown Bars—Good merchant quality	11 10 0	to 12 10 0
Staffordshire Marked Bars	14 0 0	... 15 0 0
Mild Steel Bars	10 0 0	... 11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	... 11 0 0
Hoop iron, basis price	11 10 0	... 12 10 0
" Galvanised	27 0 0	... 28 0 0
Soft Steel Sheets, Black—		
Ordinary sizes, to 20 g.	13 0 0	... 14 0 0
" " " 24 g.	14 0 0	... 15 0 0
" " " 26 g.	16 0 0	... 17 0 0

Sheets Flat Best Soft Steel, C.R. and C.A. quality—

Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 0 0	...	17 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 0 0	...	20 0 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets—

Ordinary sizes, 6 ft. to 9 ft. to 20 g.	16 10 0	...	17 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	17 0 0	...	18 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	20 0 0	...	21 0 0

Sheets Galvanised Flat, Best quality—

Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0	...	22 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 0 0	...	25 0 0
Best Soft Steel Sheets, 26 g.	24 10 0	...	25 10 0
Cut Nails, 3 in. to 6 in.	18 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)

	£ s. d.
LEAD—Sheet, English, 4 lb. and up	38 5 0
Pipe in coils	38 15 0
Soil pipe	41 15 0
Compo pipe	42 15 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills per ton 25 0 0

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	1 1½
Strong sheet "	1 0
Thin "	1 1
Copper nails "	2 3
Copper wire "	2 4

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
29/- 45/- 76/- 153/- 246/- 510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
41/6 62/- 92/- 174/- 300/- 588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in. ¾ in. 1 in.
30/6 60/- 116/6 per doz.

CAPS AND SCREWS.

1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.
7/6 10/- 14/- 23/- 30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 11/- 17/- 29/- 36/- 63/- per doz.

BRASS SLEEVES.

1¼ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/- 20/- 24/- 31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in. ¾ in. 1 in. 1¼ in. 1½ in.
35/- 56/- 98/- 162/- 228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in. 1½ in. 2 in. 3 in.
8 lbs. P. traps 33/- 41/- 56/- 101/- per doz.
8 lbs. S. traps 35/- 45/- 66/- 126/- "

TIN.—English Ingots, 2/6 per lb. SOLDER.—Plumber's 1/1. Tinmen's 1/4, Blowpipe 1/5 per lb.

PAINTS, &c.

Raw Linseed Oil, in pipes	per gallon	0 2 9	
" " "	in barrels	0 2 11	
" " "	in drums	0 3 1	
Boiled " "	in barrels	0 3 1	
" " "	in drums	0 3 4	
Turpentine in barrels		0 4 2	
"	in drums (10 galls.)	0 4 4	
Genuine Ground English White Lead, per ton		60 0 0	

(In not less than 5-cwt. casks.)
Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

GENUINE WHITE LEAD PAINT.

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J." Brand, and other best brands (in 14 lb. tins) not less than 5 cwt. lots .. £ s. d.

	per ton delivered	78	10 0
Red Lead, Dry (packages extra) ..	per ton	48	10 0
Best Linseed Oil Putty	per cwt.	0	15 0
Filicol	,,	0	15 6
Size, XD quality	1kn.	0	3 6

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.
15 oz. fourths .. 2½d.	32 oz. fourths	6½d.
15 ,, thirds .. 3½d.	32 ,, thirds	8½d.
21 ,, fourths .. 3½d.	Obscured Sheet, 15 oz.	3½d.
21 ,, thirds .. 4d.	,, 21 ,,	4½d.
26 ,, fourths .. 4d.	Fluted, 15oz. 6½d., 21oz.	9d.
26 ,, thirds .. 6½d.	En'lled, 15oz. 4½d., 21 oz.	6d

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
⅛ Rolled plate	4½d.
⅛ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White ..	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 6
Best Black Japan		0 10 6
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

NEW BUILDINGS IN SCOTLAND

Dundee.—HOUSES.—The Dundee Town Council has decided that the houses to be erected under the Fleming Trust should be dwellings of the flatted type, comprising 160 single-roomed, 100 two-roomed, and 96 three-roomed houses. The total cost of these houses will be £118,444.

Dundee.—BUILDING.—Plans and sections of the following proposed new buildings, etc., have been lodged at the office of the City Engineer :—Adelaide-place—houses for Mr. J. Johnston; Clepington-road—shops and dwelling-houses for Mr. Wm. M. Patrick; Dalkeith-road and Haddon-road—dwelling-houses for Mr. Wm. M. Patrick; Meadowside—additions for the Eastern Club, Mr. James Findlay, architect, 33, Albert-square; and Seagate—alterations for the Town Council.

Falkirk.—HOUSING.—The Dean of Guild Court have granted the Falkirk Town Council permission to erect nine blocks of four three-apartment houses and six blocks of four two-apartment houses in Carmuirs-avenue, Camelon, at an estimated cost of £18,200.

Giffnock.—DESTRUCTOR.—A site has been secured in a disused quarry at Giffnock for a refuse destructor. The estimated cost is £2,570.

Glasgow.—BUILDINGS.—Among the plans passed by Glasgow Dean of Guild Court were those for a cabinet factory, estimated to cost about £70,000, which the Scottish Co-operative Wholesale Society are to erect at Shieldhall. The Governors of the Western Infirmary were granted permission to erect a new X-ray department at the Infirmary; the Trades House to make alterations on their buildings in Glassford-street; Kelvinside Academy War Memorial Trust to erect a stand at Balgray, Great Western-road; and the Central Electricity Board to erect an oil plant house and water motor house in Dalmarnock.

Paisley.—HOUSES.—The Town Council is to build 200 two-roomed houses at Shortroods.

Peebles.—HOUSING.—Peebles Town Council has decided to go on with another building scheme at Dalatho, which, it is proposed, should embrace 48 two-roomed houses.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'‡ Plasterers'†
Aberdeen	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Airdrie	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/5½	1/1
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/–
Bo'ness	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3 †1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	‡1/2½ †1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2
Hawick	1/7	1/7	1/7	1/7–1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/– to 1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/–
Lanark	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Leith	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½† 1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Perth	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District)	1/7½	1/9	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 572.

PATENTS

APPLICATIONS PUBLISHED.*

295,003.—Soc. Anon l'Aspiration Scientifique : Chimney-tops.

300,842.—G. B. Hinton : Apparatus for making a spumous mass of cementitious material.

300,843.—G. B. Hinton : Method of making a cellular cementitious product.

300,845.—P. Körber : Method of and means for forming mosaic coverings.

300,847.—A. Reppman : Adjustable roofs for furnaces.

300,850.—L. J. Turcotte : Window constructions.

300,851.—A. Wagenbach : Bending-machine for rod-iron and profile-iron.

300,871.—P. Kajanoff : Syphon-discharge cisterns.

288,533.—A. Mauterer : Sheet-piling.

300,933.—Stewarts & Lloyds, Ltd., and J. Mitchell : Covering of the external surfaces of iron and steel pipes and tubes with bituminous material.

300,976.—R. W. Spencer, H. P. Harris, and Carlton Pipe Joint Co., Ltd. : Pipe-joints.

300,711.—R. Davies : Construction of wooden gates and doors.

301,129.—J. Wedgwood : Forcing-frames, glasshouses and huts.

301,132.—F. Hancox : Coating metal surfaces.

301,149.—H. J. Cullum and C. M. Streete : Self-locking stays for hinged members.

301,161.—G. B. Williams and W. J. H. Porter : Manufacture of metallic grid-work.

301,188.—M. H. Clewes : Garages for housing road vehicles.

301,222.—T. Blandford and A. Gee : Method of concreting shafts and boreholes.

301,224.—E. W. Roberts and J. E. Temple : Construction of chimneys, stacks, fireplaces and chimney breasts.

301,244.—H. J. C. Forrester : Extraction of saps, and the impregnation, staining, or drying of timber logs.

301,255.—E. Chenille : Ferro-concrete poles and towers of the composite type.

301,343.—Airship Guarantee Co., Ltd., and B. N. Wallis : Jointing of flanged structures.

301,538.—W. C. Cocking : Reinforced concrete floor.

301,546.—G. Rehn and B. Kokemper : Valve arrangement for the control of the water supply to flushing-cisterns.

301,547.—G. Knudsen, V. M. Schmidt, and R. Knudsen : Refractory building material.

301,589.—H. W. Adshead : Slab and post wall constructions for buildings and structures.

301,594.—S. S. Abbott : Supporting attachment for ladders

280,199.—M. Deniau : Method of and apparatus for making or laying planked excavation work, coffer dams, and retaining walls.

301,650.—C. Whittaker & Co., Ltd., and N. Whittaker : Brick-making machines.

301,667.—A. Steinbruckner : Grinding or crushing mills.

287,928.—E. H. Kleinfeldt : Wall construction

288,202.—G. Conod and F. C. F. Lecoultre : Processes for the manufacture of artificial stone of crystalline structure.

290,294.—Aktiebolaget A. Christiernson and Aktiebolaget Eksjo Mekaniska Verkstad : Sand-slinging machine.

291,759.—International de Lavaud Manufacturing Corporation : Moulds for the centrifugal casting of iron pipes.

301,711.—H. Ehret and E. Munz : Tools for operating upon stone and tiles.

292,598.—Tee Stone Corporation : Concrete building construction.

301,713.—A. R. Wells : Metal nails for use in fixing wall-board, plywood, carpets, and woodwork

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Flotton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0	
Do. joists	" "	5	6	
Do. roofs, floors and partitions	" "	6	0	
Do. trusses	" "	8	6	

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

Fl t centering for concrete floor, including struts or hangers	"	50	0	
Do. to beams	per ft. sup.	0	11	
Centre for arches	"	1	6	
Gutter boards and bearers	"	1	0	

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bea ers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1½ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	50	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Read lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	9
Do. Do. Keen's	" "	4	0
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic paving	per yard sup.	5	6

GLAZIER.

21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Changes of Address.

The Leforest Tile Co., Ltd., lately of 25, King William-street, E.C.4, has removed to Bank Chambers, 10, Borough High-street, London, S.E.1. Telephone: Hop 1737 (two lines).

The British Reinforced Concrete Engineering Company's address in Leeds is now, we learn, North British Buildings, 29, East-parade, Leeds. Mr. S. Bulmer is in charge of the roads department, assisted by Mr. C. H. Tilston. Telephone number: Leeds 24469.

Bathroom and Lavatory Fittings.

Messrs. Saunders & Connor (Barrhead), Ltd., have issued a catalogue of their coloured porcelain-enamelled sanitary lavatory fittings which provide a decorative tone to harmonise with furnished bedrooms and bathrooms. The list is not intended to be a complete catalogue, but to illustrate the effect of coloured porcelain enamel in furnished bathrooms, and architects and builders should add it to their file for reference. It is obtainable from 348-350, Euston-road, N.W. This firm can also supply any of their standard baths, lavatory basins and cisterns, and also light iron castings porcelain-enamelled in any of five colours, viz.: almond-green, powder-blue, grey-blue, pink, and straw-yellow.

Low-Temperature Radiation.

The National Radiator Co., Ltd., of Hull, have issued a pamphlet dealing with the Ideal "Rayrad" Radiator, which utilises the principle of low-temperature radiation and provides a form of artificial warmth which approximates most nearly to the radiant heat of the sun. Many radiators function chiefly by convection, *i.e.*, by warming the air, whereas the Ideal "Rayrad" Radiator ensures an equable condition of comfort by means of radiant heat, without the disadvantage of employing a source of heat at a high temperature, such as that of a fire. Another advantage of the Ideal "Rayrad" is that the long-wave thermal rays emitted do not pass unconverted as radiant energy from the room, either through ordinary or ultra-violet ray glass. Three types of section are available, the No. 8 having the waterway in the form of panels on the exposed face, the No. 16 having a moulded edge, and the No. 15 designed for building in flush with the face of the wall. These are illustrated in the pamphlet which will be sent upon application.

Textured Wall Surfaces.

A decorative scheme which has been introduced from the United States and has caught and held the attention of architects and their clients is the method of obtaining textured wall and ceiling surfaces by means of plastic paint. There are several of these preparations on the British market, but the underlying principles of use and application are the same. The paint, which is in the form of a powder, is mixed with water, and is applied in the form of a paste on to any surface which it is desired to decorate. It is then worked into ridges, whorls, etc., or any of a number of effects, by means of a brush, stipplers, etc. The high points are then smoothed down with a celluloid edge. It is allowed a few hours in which to dry, and is then painted with one or more solutions of pure colours. The high points are then wiped with a cloth, leaving the colour in the recesses. The possibilities of this method are many. The decoration is novel, absolutely permanent (although the scheme of colours can be varied subsequently if desired), and has the advantage of being suitable for application straight on to brick, timber, iron, etc., thus cutting out the cost of plastering. Architects may have seen examples of what has been done with this method at Olympia, but the uses of the method are probably yet in their infancy.

We have seen recently some delightful textured surfaces in the shape of showrooms carried out by Messrs. Campbell Bros., Ltd., of 28, Albert Embankment, S.E.11, and we recommend architects and their clients to pay a visit and inspect them for themselves. Messrs. Campbell have, amongst other jobs, carried out the decoration at the Fortune Theatre, W.C., Messrs. Leathart and Granger's new Twickenham cinema, and the same architects' Kensington cinema.

Bournemouth Pavilion.

The electric light and power installation at this building has been carried out by Messrs. Aish & Co., electrical engineers, of Yelverton-road, Bournemouth. The new pavilion is the first building in Bournemouth in which a three-phase electricity supply has been used, 200 volts for lighting, 346 volts for power, 100 cycles being the periodicity. The electric supply is taken from the mains of the Bournemouth and Poole Electricity Supply Co., who have provided a special 11,000-volt service into the building, and their transformers are accommodated in a room near the power-house, whilst an emergency lighting system is provided, using the 500 volt D.C. supply, which drives a motor generator, producing 200 volts, D.C.

The electric-light installation consists of approximately 1,750 lamps of varying wattages, from 25 to 1,000 watts. The electric-power installation consists of 32 electric motors, varying in size from 35 h.p., driving the ventilating fans, down to ¼ h.p. for the labour-saving appliances in the kitchen, totalling 270 h.p. in all.

The electric-light fittings throughout the building have been specially designed in conjunction with the architects, and have been manufactured by the General Electric Co. For the concert hall, promenoir, ballroom and restaurant, the modern glass-panel type of fitting has been used, and the diamond rain-drop glass, in various colours, provides striking and beautiful effects. In the ballroom a "three-colour" scheme has been introduced, having "dimmers" on all colours. In order to obviate corrosion from the sea air, most of the electric-light fittings have a cellulose finish, a new departure which enables some effective colours to be used. The effect of the artificial lighting is specially shown in the illustrations on pages 553 and 564.

The stage is equipped with a comprehensive lighting scheme, which will produce all the latest effects, and enable musical comedies, revues, and other spectacular shows to have lighting effects equal to London productions. The electric-power installation includes a passenger lift, four service lifts from the kitchen to the restaurant and ballroom; the kitchen is equipped with many electrically operated labour-saving machines, whilst the refrigerators and soda fountains are operated on the "Frigidaire" automatic refrigerator system.

The Sturtevant central vacuum cleaning plant installed comprises a turbo-exhauster of large capacity fixed in the boiler-house, together with a central dust receiver and an extensive piping system, which, carefully concealed behind architectural features, is led about the building to provide cleaning facilities in all parts frequented by the public. The piping emerges into the building in the form of artistically finished hose connecting points, to which flexible rubber hose piping can be attached for the purpose of conducting cleaning operations therefrom. All dust and litter collected is passed through the pipe lines to the central receiver in the boiler-house, and from thence will be taken to the boiler or destructor. No dust is disturbed during cleaning operations. The plant is designed to permit of six operators working simultaneously on carpet cleaning from any of the 41 cleaning points provided in the building, and is equipped with a 10-B.H.P. electric motor, operating on a 346-volts, 100-periods, three-phase, A.C. supply.

TENDERS

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

EASTER HOLIDAYS.

Owing to the Easter Holidays next week, we publish on March 28. The last day for receiving Editorial copy is Tuesday morning, March 26.

Armley.—For reconstruction of shop premises in Town-street, for the Style Boot Co.:—
*Sharp & Law.

Bath.—Reinforced concrete pumping tank and a masonry pump-house, together with necessary excavation, drainage, etc., thereto, adjacent to the New Warminster-road, Bathampton, for the Corporation. Mr. P. Porteous, Waterworks Engineer, 6, Terrace-walk. Quantities by the engineer:—
*E. Ireland, Bath.

Beckenham.—For mainlaying and contingent works for the improvement of the supply to Penge and Beckenham, for the M.W.B.:—

Whittaker Ellis, Ltd.	£21,754 12 3
Wm. Press & Son	21,286 7 1
Howard Farrow, Ltd.	20,041 13 10
*John Mowlem & Co., Ltd.	18,510 10 9

Belfast.—692 feet of concrete retaining wall, steps and iron railings, in connection with the widening of Shore-road, at Greencastle, for the C.B. Mr. R. B. Donald, City Surveyor:—
*J. Elliott, Belfast.

Bentley (Yorks).—School premises in Finkle-street for Rev. Thomas S. Bentley, St. Peter's, Chains, Doncaster. Messrs. Empsall, Clarkson & Clarke, L.R.I.B.A., architects, Piece Hall-yard, Bradford:—
*J. Horkins & Sons, Liversedge.

Bilbohall.—Steading, for the Morayshire District Board of Control. Mr. J. Wittet, architect, 81, High-street, Elgin:—
Builders—*W. Forsyth & Co.
Carpenter—*M. J. Gorman.
Slaters—*A. Davidson & Son.
Plumber—*John A. Russell.
Plasterer—*John Ross.
Painter—*Robt. Gordon.
(All of Elgin.)

Birmingham.—Reconstruction in mass concrete and steelwork of Cartland-road bridge over the River Rea, together with roadworks in approaches and reconstruction of foul and surface water sewers, for the T.C. Mr. H. H. Humphries, City Engineer and Surveyor:—
*C. A. Horton, Brierley Hill, Staffs.

Blackburn.—Structural steelwork in connection with the erection of extensions to the Blackburn and East Lancashire Royal Infirmary for the Board of Management. Messrs. Sames & Green, architects, 14, Richmond-terrace:—
*Edward Wood & Co., Ltd., Manchester.

Blackburn.—202 houses for the C.B. Mr. H. M. Webb, Borough and Water Engineer:—
*Henry Boot & Sons, Ltd., Sheffield.

Blexwich.—Maternity home for the Walsall Corporation. Mr. J. Taylor, M.I.C.E., Borough Surveyor:—
*J. R. Deacon, Walsall £2,815

Bolsover.—New water tower in Langwith-road, for the U.D.C. Mr. Charles Boldry, Water Engineer. Quantities by the Indented Bar and Concrete Engineering Co., Ltd.:—
‡A. Richmond & Sons, Retford.

Bourne.—32 houses for the U.D.C.:—

J. Arch, Spalding	£13,216
Thompson & Sons, Ltd., Grimsby	12,568
Hawkins & Son, Peterborough	12,528
Campion & Penny Holbeach	12,464
J. Cracknell, Peterborough	12,180
A. H. Scotney, Bourne	12,180
A. Longland, Thurlby	12,019
Hotter & Son, Billingborough	11,876
F. Porter, Colsterworth	11,668
T. A. Scotney, Bourne	11,622
Saul & Son, Rotherham	11,470
Harris Bros., Derby	11,292
*C. P. Unwin, Ecclesfield, Sheffield	10,880

Chester.—54 parlour and 2 non-parlour type houses on the Eaton-road site, for the T.C. Mr. C. Greenwood, City Engineer and Surveyor:—
*H. Pugh, Hawarden-road, Caergwrle, near Wrexham £22,596 16

Chester.—Alterations to the shop and public lavatories at the Hop Pole Paddock, for the City Council. Mr. C. Greenwood, City Engineer and Surveyor, 43, Northgate-street:—
*Thos. Body, Broughton, near Chester £1,461 4

Church Stretton, Salop.—18 houses in Essex-road, for the U.D.C.:—
*G. & H. Jones, Cartref, Prestatyn...£6,750

Coulsdon and Purley.—20 three-bedroom type houses in Farleigh-road, Sanderstead, for the U.D.C. :—

	English Tiles.	*Foreign Tiles.*	*Slates.*
H. Bacon & Son, Coulsdon	£9,687	£9,634	£9,753
F. and Thos. Chappell, Liverpool	9,050	8,730	9,100
Walter Cottage, Ltd., Coulsdon	9,755	9,660	9,820
Franklin & Co. (Erith), Ltd., Erith	9,480	9,412	9,508
W. F. Goodchild, London	10,800	10,650	10,900
H. Gibson, Ltd., Croydon	10,995	10,920	11,100
J. Guttridge & Sons, Ltd., Peterborough	9,912	9,850	9,875
W. Garner, Banstead	8,924	8,824	8,974
J. S. Harper, Midhurst	9,688	(a)	(a)
Jenkins & Co., Lewisham	14,073	14,033	14,056
Lawes Cherry & Co., Ltd., London	9,072	8,972	9,132
Lister-Mawby (Builders), Ltd., London	11,445	11,550	11,300
R. Mansell, Croydon...	9,840	9,720	9,940
C. L. C. Morgan, Croydon	10,177	9,984	10,394
S. E. Moss & Sons, Chelmsford	8,200	7,900	8,000
David Pierson & Co., Ltd., London	10,419	10,314	10,511
E. Pressey, Coulsdon	10,173	10,075	10,125
Thompson & Sons, Ltd., Grimsby	*9,010	8,968	9,028
Truett & Steel, Ltd., Thornton Heath	11,080	10,975	11,187
Universal Housing Co., Ltd., Rickmansworth	10,020	9,880	10,020

(a) Variations as Schedule.

Denny and Dunipace.—28 houses, for the T.C. Messrs. James Strang & Wilson, A.R.I.B.A., architects, Falkirk :—

John Baxter & Sons, Dunfermline.
D. & W. Nimmo, Wishaw.
George Porter, Bellshill.
Wm. Chambers & Sons, Motherwell.
Drummond & Crowe, Falkirk.
Ramsay Bros., Laurieston.
J. Hardie & Son, Bo'ness.
Jas. Murdoch & Co., Larbert.
Cochrane Bros., Bo'ness.
John Mawell & Sons, Falkirk.
*Duncan Stewart, Ltd., Bonnybridge.
J. J. & P. McLachlan, Ltd., Larbert.
Connobory & O'Brien, Sterling.

Dewsbury.—37 houses at Pilgrim Farm estate, for the Corporation :—

Mason—*J. Donovan, Dewsbury £5,278 19
Joiner—*J. Richardson & Sons, Staincliffe £2,706 18
Plumber—*W. Scott & Sons, Dewsbury £1,709 13
Slater—*J. Kellett, Morley £939 13
Plasterer—*G. Crossley & Son, Gomersal £809 11 6
Painter—*J. A. Schorah, Ravensthorpe ... £222

Dodworth.—Mortuary at the Council's store shed in Green-road, for the U.D.C. Mr. H. Strutt, surveyor :—

*E. Walton, Dodworth.

Doncaster.—Premises at Sepulchre-gate for Messrs. Montague Burton, Ltd., Hudson-road, Leeds. Mr. Harry Wilson, architect, 81, North-lane, Roundhay, Leeds :—

*Thomson & Dixon, Ltd., Doncaster.

Dundee.—Additions to the slaughter houses, for the T.C. Mr. George Baxter, City Engineer. Quantities by the City Engineer :—

Reinforced concrete raft—
*David Floreburgh, Dundee £2,884 18 11
Brickwork—
*Hugh B. Kerr, Dundee 2,842 14 0
Steelwork—
*Fleming Brothers, Glasgow 2,677 10 5
Joiner work—
*Wm. Steele & Sons, Dundee 293 10 0
Plumber work—
*Hugh Twaddle & Son, Ltd., Glasgow 2,439 19 3
Roof tiler work—
*Andrew Clark, Dundee 918 11 7
Glazier work—
*W. H Heywood & Co., Ltd., Huddersfield 461 11 10
Wall tiler work—
*Engram & Walker, Dundee 804 4 8
Boiler and steam piping—
*T. P. Finister, Dundee 736 3 0
Painter work—
*Guthrie Raith, Dundee 374 14 0

Enniskillen.—New buildings at Convent of Mercy, Enniskillen. Mr. J. Donelly, architect, Enniskillen :—

Jos Magure, Irvinestow £16,580
J. Donnelly & Son, Enniskillen 15,920
Jas Harvey & Sons, Enniskillen ... 15,781
*H. Pierce & Sons, Enniskillen 14,200

Eton.—New sewage disposal works, consisting of screen and screening chamber, pump and motor house, sedimentation tank, bacteria beds, storm-water standby tank, sludge lagoons, etc., on land sitgate in Iver, for the R.D.C. Mr. A. Gladwell, engineer. Quantities by Messrs. Robinson & Roads, of London :—

*Daniel T. Jackson, Ltd., Barking, Essex £12,288

Filey.—Extensions to the sea wall in mass concrete, with pre-cast block facing, and for altering and re-surfacing a road and slipways in connection therewith, for the U.D.C. Messrs. Fairbank & Son, chartered civil engineers, The Tudor House, Stonegate, York :—

*W. Firth, Ltd., Doncaster £10,105 8 3
(Subject to sanction by M.H.)

Glynceiriog, Denbighshire.—Alterations and additions to the Ceiriog Memorial Institute. Mr. T. Alwyn Lloyd, F.R.I.B.A., architect, 6, Cathedral-road, Cardiff :—

W. E. Samuel, Wrexham £1,702 0 0
D. Davies & Sons, Llangollen 1,640 10 10
Amos Phillips, Glynceiriog 1,608 11 4
R. Evans & Sons, Glynceiriog 1,592 3 2
John Hughes, Wrexham 1,543 0 0
*Isaac Jones, Llanfechain, Mont. 1,507 8 4

Guiseley.—Alterations, strengthening and covering of floor with maple boarding, etc., at the Town Hall, for the U.D.C. :—

Steelwork—*Barrett Bros., Ltd., Bradford.
Stonework—*Mitchell Yeadon & Sons, Yeadon.
Joinery work—*Rushworth, Yeadon & Rawdon.

Huddersfield.—Additions to the Church for the Trustees of the Golcar Baptist Church, near Huddersfield. Messrs. Lunn & Kaye, architects, Milnsbridge, near Huddersfield :—

Mason's—*Bailey & Stott, Golcar.
Joiner's—*W. Lockwood & Son, Golcar.
Plumber's—*J. Garthwaite, Milnsbridge.
Heating and Ventilating—*T. Allison, Ltd., Milnsbridge.
Plasterer's and Painter's—*Arthur Taylor, Golcar.
Concretor—*J. Hinchliffe, Huddersfield.
Electrician—*H. C. Stringer, Huddersfield.
Wood block flooring—*Hollis Bros. & Co., Ltd., Hull.

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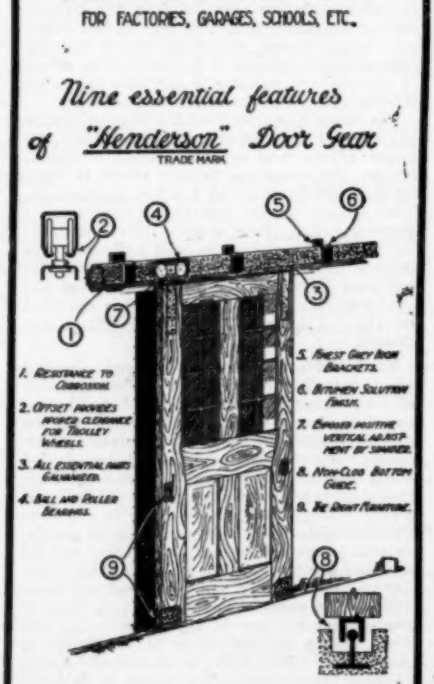
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Huddersfield.—Pair of semi-detached houses in Blackmoorfoot-road, Crosland Moor. Mr. Joe Ainley, architect, Albert-chambers, 55, New-street :—

Mason's—*E. Pearson & Sons.
Joiner's—*F. Saville.
Plumber's—*H. G. Stringer.
Slater's—*G. H. Day & Sons.
Plasterer's—*G. H. Day & Sons.
Electrician's—*W. R. Bottomley.
Concretor's—*J. Hinchliffe.
Painter's—*S. Holdsworth.
(All of Milnsbridge.)

Hull.—For (a) 108 parlour and non-parlour houses; (b) 118 parlour and non-parlour houses, on the North Hull housing site extension, Ingiemire-road and Hall-road; (c) 110 parlour and non-parlour houses; (d) 144 parlour and non-parlour houses, on the Derringham Park Farm site, Willerby New-road, for the Corporation :—

(a)—
*H. M. Nowell, Ltd. £38,720
(b)—
*H. M. Nowell, Ltd. 42,750
(c)—
*Holliday & Barker 41,991
(d)—
*Holliday & Barker 55,407

Ivybridge.—10 houses on the Mill Meadow site, for the U.D.C. Mr. W. A. Vercoe, A.R.I.B.A., architect, Sun-buildings, Plymouth :—

Unity Builders, Paignton, Devon £5,087 11
Wakeham Bros., Ltd., Plymouth 4,750 0
Holmes, Plymouth 4,243 0
Williams & Bishop, Buckfastleigh 4,000 0
Ernest Jewell & Sons, Plymouth 3,980 0
*Universal Housing Co., Ltd., Newton Abbott 3,960 0

Keighley.—35 houses on the Guard House housing estate for the Corporation. Mr. E. G. Felgate, A.R.I.B.A., Borough Architect :—
*E. Turner, Ltd., Keighley.

Kempton.—Renovations at the Board's house at the Kempton works, Sunbury, for the M.W.B. :—

H. S. Moss £165 0
C. H. King 164 10
James Singleton & Sons 146 9
W. H. Gaze & Sons, Ltd. 142 0
*Thos. Johnson & Sons 126 0

Kendal.—38 houses in Castle-road, for the T.C. Mr. F. W. Oxberry, Borough Surveyor and Engineer :—

*P. A. Baines & Son, Preston.

Kettering.—Houses on the Avondale-road housing estate, for the U.D.C. Major J. P. Haugh, engineer and surveyor :—

	36 parlour type	38 non-parlour-type
The Yorkshire Hennebique Contracting Co., Ltd., Leeds ...	£19,002	£17,624
W. Riddle & Sons, Kettering	17,100	16,150
C. A. Lewin, Kettering	16,884	15,162
Phillips & Slow, Ltd., Kettering	16,884	15,162
Smith & Bunning, Kettering ...	16,884	15,162
Smith Edmunds & Co., Kettering	16,884	15,162
W. Thompson & Sons, Ltd., Irthlingborough	16,290	14,646
Robt. Mariott, Rushden ...	15,462	14,934
John Cracknell, Ltd., Peterborough	15,660	14,630
C. P. Unwin, Ecclesfield	15,800	13,800
Harris Bros., Marehay, Derby	15,120	14,060
*Kettering Urban District Council	15,652	*13,300
O. P. Drever & Son, Ltd., Kettering	14,616	14,288
*Joseph Streather and Son, Corby	*14,580	14,202
Gee, Walker & Slater, Ltd., Derby	14,940	13,740
H. H. Garlick, Market Harborough	15,390	13,205
J. E. Walker, Leadgate, Co. Durham	14,222	14,250
Pearson & Blackwell (Doncaster), Ltd., Doncaster	14,962	13,484
S. Higton & Sons, Woodseats, Sheffield	14,599	13,755
Marshall, Hamer, Ltd., Westminster	14,652	13,300
Sabin & Young, Ltd., Scunthorpe, Lincs.	13,788	13,946

Leigh, Lancs.—(a) 44 houses, (b) 44 houses, (c) 44 houses, on No. 4 Cow-lane housing site, for the Town Council :—

(a)*T Collier & Sons, Leigh £15,070
(b)*George Moss & Sons, Leigh £15,070
(c)*Leigh Corpn. Building Dept. ... £15,444

London.—External painting works to 128 houses on the Council's estates, for the Wandsworth B.C. :—
*J. T. Long £436 9

Lancaster.—Alterations and additions to the Springfield Nurses' Home, for the Governors of the Royal Infirmary. Messrs. Austin & Paley, A.R.I.B.A., architects, 24, Castle-park:—
*R. S. Wright & Sons, Lancaster.

Langholm.—Restoration of Milntown girder bridge over River Ewes, for Joint Committee of Eskdale and Liddlesdale Agricultural and Pastoral Society and Langholm Rugby Football Club. Mr J. C. Boyd, M.Inst.C.E., 18, Bank-street, Carlisle:—
*G. Patterson & Co., Waterbeck, via Lockerbie.

Leeds.—Elementary school at Osmondthorpe, for the E.C. Mr. Broadbent, City Education Architect:—
*Paul Rhodes, Ltd.
Plastering—*James Phillips.
Plumbing—*A. Lindley.
Painting—*Roylance & Horsman.
(All of Leeds.)

Leeds.—Flats on the Hawksworth, York, and Selby-road, and Middleton housing estates, for the T.C. Mr. W. T. Lancashire, City Engineer:—
100, on the York and Selby-road housing estate—
*Paul Rhodes, Ltd., Leeds £26,644
76, on the Middleton housing estate—
*Paul Rhodes, Ltd., Leeds £21,052
32, on the Hawksworth Wood housing estate—
*Paul Rhodes, Ltd., Leeds £9,152

London.—Filtration plant house and sub-station adjoining open-air bath, Bloemfontein-road, Shepherds Bush, W.12, for the Hammersmith B.C. Mr. R. Hampton Clucas, Borough Engineer and Surveyor:—

A. Logan	£969	0	0
R. Mansell	743	0	0
W. H. Cooper & Co.	739	0	0
Lester Construction Co.	694	0	0
A. Pascall & Sons	638	0	0
White & Johnson	625	0	0
R. Dixon	624	9	6
*F. Coyle & Co., 61, High-street, Brentford	542	0	0

(All of London.)

London.—For laying mains in the Hendon and district, for the M.W.B.:—

Alexander Thomson & Co. (London), Ltd.	£21,452	6	4
C. V. Buchan & Co., Ltd.	21,239	8	4
Thomas Muirhead & Co., Ltd.	20,789	19	10
G. Percy Trentham, Ltd.	19,568	1	8
Whittaker Ellis, Ltd.	19,265	6	7
W. & C. French	18,705	1	8
Wm. Press & Son	17,893	8	11
E. E. Jeavons & Co., Ltd.	17,840	2	3
George Wimpey & Co., Ltd.	17,792	10	2
John Mowlem & Co., Ltd.	17,146	2	10
Howard Farrow, Ltd.	13,964	3	9

London.—Renovation work at 60, Amwell-street, and two cottages, New River-yard, Clerkenwell, for the M.W.B.:—

Collins & Co.	£199	0	0
Sidey & Harvey	195	0	0
Croot & Gore	174	2	0
W. Chapman & Sons	167	10	0
Jas. Webb & Sons	148	17	6
R. Lidstone & Son	141	0	0

London.—Pipe laying, for the M.W.B.:—

Kent District—			
Mears Bros.	£37,956	17	6
Wm. Press & Son	28,452	9	8
*John Mowlem & Co., Ltd.	27,023	13	1
Northern District—			
John Mowlem & Co., Ltd.	68,538	0	5
*Wm. Press & Son	63,838	11	7
Southern District—			
Mears Bros.	28,357	7	6
Wm. Press & Son	19,163	16	8
*John Mowlem & Co., Ltd.	18,335	10	11
Western District—			
Wm. Press & Son	48,526	12	3
John Mowlem & Co., Ltd.	45,547	9	11
*Whittaker Ellis, Ltd.	43,091	17	8

London.—New boundary wall at 55, Balcorne-street, for the Hackney B.C.:—

E. A. Roome & Co., Ltd.	£125	0	
W. H. T. Kelland & Sons, Ltd.	118	0	
James Stewart & Sons	117	10	
L. H. & R. Roberts	110	0	
*J. Jarvis & Sons, Ltd.	102	0	

London.—For renewing the pavement lights at the underground public convenience in Kingsland-road, for the Hackney B.C.:—
*J. A. King & Co., Ltd., 181, Queen Victoria-street.

London.—Rebuilding of the "Mail Coach," Camomile-street. Messrs. J. S. Quilter & Son, architects, 3, St. James's-street, S.W.:—
*Hall, Beddall & Co., Ltd., London.

London.—Additions to buildings, Park Royal Hospital, for the Willesden U.D.C. Messrs. A. Saxon Snell & Phillips, FF.R.I.B.A., architects, 9, Bentinck-street, Manchester-square, W.1:—

S. Godson & Sons, Ltd.	£1,250
F. R. Hipperson	1,097
Bovis (1928), Ltd.	956
J. W. Buckingham & Son	945
*W. H. Watts, Willesden-green, N.W.	896

London.—Reconstruction of the "Golden Domes" cinema at Streatham High-street, S.W. Messrs. J. Stanley Beard & Clare, architects, 101, Baker-street, W.1. Mr. Ernest R. Babbs, quantity surveyor, 40, St. James's-place, S.W.1:—

J. E. Falkner & Sons	£11,670
W. F. Blay, Ltd.	10,996
Bovis (1928), Ltd.	10,885
T. H. Adamson & Sons, Ltd.	10,845
H. Gibson, Ltd.	10,750
*Kirk & Kirk, Ltd., Upper Richmond-road, Putney, S.W.	10,750

Lytham.—Headquarters for the Lytham branch of the St. John Ambulance Brigade. Mr. A. Price, architect, 14, Park-road, Lytham:—
*J. E. Myerscough, Ltd., Lytham.

Manchester.—Structural alterations to premises at Tortworth-street, Cheetham, for Messrs. Shanks & Co., Ltd.:—
*J. Garrard & Sons, Ltd., Manchester.

Manchester.—Alterations to 54, Portland-street, for the trustees of Mr. T. Taylor:—
*E. Grantham & Son, Manchester.

Manchester.—Conveniences to premises at Devonshire-street, Ardwick, for Messrs. Universal Stores, Ltd.:—
*T. Campion & Sons, Ardwick.

Manchester.—Conversion of house into shop and house at 33, Leaf-street and Warwick-street, Moss Side, for Lord's Army and Navy Stores, Liverpool-street. Mr. A. McDonald, architect, 71, Meadow-street, Moss Side:—
*J. Statham, Moss Side.

Manchester.—Alterations and additions to "Norwood," 38, Palatine-road, Withington, and erection of a garage, for Mr. A. Cansino. Mr. G. A. Goldstraw, A.R.I.B.A., architect, 76, Cholmondeley-road, Pendleton:—
*George H. Goldstraw, Salford.
Plasterers—*Harle & Co., Salford.
Plumber—*T. Martill, Manchester.
Heating—*Saunders & Taylor, Ltd., Manchester.

Manchester.—Extensions to the works in Ashton New-road, of the Clayton Aniline Co., Ltd., Clayton-lane, Clayton:—
*Gerrard & Sons, Ltd., Manchester ... £3,400

Manchester.—Warehouse at Clayton-lane Works, for Messrs. Clayton Aniline Co., Ltd., chemical manufacturers, Clayton-lane, Clayton:—
*Tinker & Young, Ltd. £3,000
Steelwork—*Redpath, Brown & Co., Ltd.
Brickwork—*G. & W. Smith.
(All of Manchester.)

Manchester.—Infants' and junior school at Cross-street, Bradford, Manchester, for Rev. Fitzgerald, P.P. of St. Brigid's Church. Mr. W. Ellis, F.M.S.A., architect, 49, Deansgate:—
*Normantons, Ltd., Manchester.

Manchester.—Additions to the printing works at Print Works-lane, Mount-road, Levenshulme, for the Calico Printers' Association:—
*L. Fairclough, Ltd., Adlington
Steelwork—*Park & Son, Northwich.

Manchester.—Dairy at Mauldeth-road, Withington, for Mr. C. White. Mr. John Eades, architect, 17, St. Anne's-square:—
*Tooth Bros.
Plumber—S. H. Dean.
Patent Glazing—Heywood's.
(All of Manchester.)

Manchester.—Extensions to the buildings in Oldham-street, for Messrs. Robert Lomas, Ltd. Messrs. Jones & Dalrymple, F. & A.R.I.B.A., architects, 178, Oxford-road:—
*H. Matthews & Sons (Builders), Ltd.
Shop fittings—*G. A. Kiddie.
Electric lift—*Etchells, Congdon & Muir, Ltd.
Heating—*G. N. Haden & Sons, Ltd.
Plumbers—*R. Heyworth & Co.
Decorators—*C. E. Harwood, Ltd.
Electric light—*Drake & Gorham, Ltd.
(All of Manchester.)

Manchester.—Two additional stories to Granby House, Granby-row, for Messrs. Oxendale's, Ltd. Mr. H. S. Fairhurst, F.R.I.B.A., architect, 55, New Brown-street:—
*R. Carlyle & Co., Ltd., Manchester.

Manchester.—Garage, stables, etc., for Messrs. Armstrong Brittain, Ltd. Messrs. J. H. Maybury & Sons, architects, 19, Chapel-walk:—
*R. & T. Howarth, Rochdale.

Middleton.—Gymnasium in connection with Middleton Queen Elizabeth's Grammar School, for the Lancashire E.C. Mr. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston:—
*R. Taylor, Middleton.

Milnrow.—Public conveniences, etc., at Newhey, for the U.D.C. Mr. A. Travis, A.R.I.B.A., architect, Union Bank-chambers, King-street, Rochdale:—
*W. Cryer, Newhey, near Rochdale.

Nelson.—New St. Bede's Church on a site in Railway-street. Mr. Richard Jaques, A.R.I.B.A., architect, 37, Railway-street:—
Masons—*T. Dent & Sons, Nelson.
Reinforced Concrete—*Mullen & Durkin, Ltd., Burnley.
Joiners—*Raffles Brothers, Ltd., Nelson.
Slaters—*Stanworth & Sons, Ltd., Burnley.
Plasterers—*R. Rawlinson & Sons, Burnley.
Plumber—*Herbert Craven, Nelson.

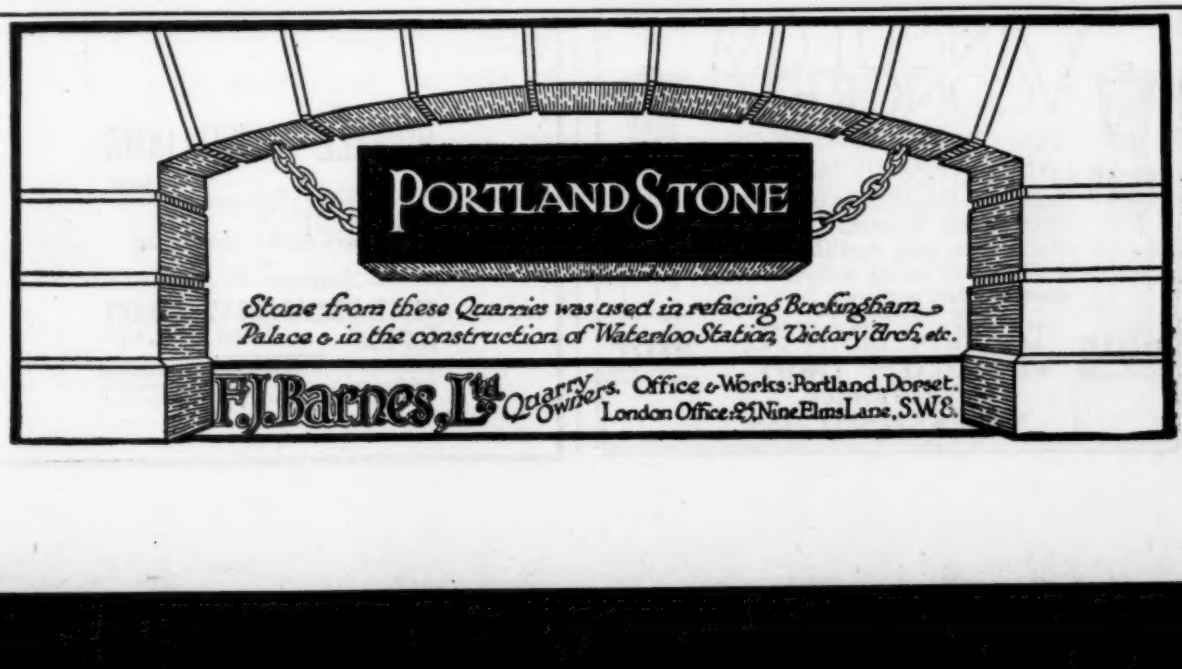
Newton-in-Makerfield.—Secondary school, for the Lancashire E.C. Mr. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston:—
*E. Taylor & Co., Ltd., Littleborough.

Oldham.—Alterations at Dr. Syntax Hotel, for the Oldham Brewery Co., Ltd. Messrs. C. T. Taylor Roberts & Bowman, architects, 10, Clegg-street:—
Brickwork, etc., carpenters and joiners' work—*Spuire Ashton & Sons, Ltd.
Masonry—*A. Mackay.
Plumbing, glazing and painting—*E. H. Shorrocks.
Plastering—*J. Glynn.
(All of Oldham.)

Perth.—For a reservoir on the Carse Burn, near North Cassochie, embankment being about 20 ft. in height; supplying and laying about 1,200 yds. of 6-in. fireclay pipe and about 6,000 yds. of iron or steel pipe of 5, 4, and 3-in. diameter; also construction of a concrete service reservoir and of a break-pressure tank, at Methven, for the C.C. Messrs. Gilbert Thomson & Son, chartered civil engineers, 164, Bath-street, Glasgow, C.2:—
*J. Monteith, White Hart-street, Dalkeith, Midlothian.

Pontefract.—Casual wards extensions, for the B.G. Messrs. Tennant & Smith, architects, Ropergate-chambers:—

Builders—			
*Brown & Lodge, Pontefract	£1,771	12	11
Joiners—			
*T. Ward & Son, Pontefract	419	13	6
Slaters—			
*Stewart Bros. & Son, Pontefract	96	5	0
Plumbers and Glaziers—			
*Cockcroft & Briggs, Nottingley	636	0	0
Plasterers—			
*F. Beighton & Son, Castleford	214	5	6
Painter—			
*Charles Hornby, Pontefract	91	13	9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Rivington.—Alterations and extensions of Rivington and Blackrod Grammar School, for the Lancashire E.C. Mr. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston :—
*E. Taylor & Co., Ltd., Littleborough.

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Rochdale.—Additions to the branch works at Bellfield, for Messrs. W. Tatham, Ltd. Mr. T. Townend, junr., architect. District Bank-chambers, Fleece-street :—
*W. Greenwood, Rochdale.

Rochdale.—66 houses on the Dickens Green estate, for the Corporation. Mr. S. H. Morgan, Borough Surveyor :—
*Middleton & Co. (Blackpool), Ltd., Blackpool.

Rochdale.—Improvements to the Nelson Inn, Drake-street, for the Manor Brewery Co., Molesworth-street. Mr. T. Townend, junr., architect District Bank-chambers :—
*J. Blomley, Rochdale.

Rotherham.—Internal painting at the tramway depot, for the T.C. Mr. Vincent Turner, Borough Engineer :—
*Whittle Bros., Rotherham £420

Salford.—Rebuilding of the "Paner Makers Arms," Clifdon-place, Broughton, for Messrs. Groves & Whitnalls, Ltd., The Brewery, Regent-road. Mr. F. Riley, A.R.I.B.A., architect, of Messrs. Brameld & Smith, architects, County-chambers, 4, Cannon-street, Manchester :—
*S. Megarity & Co., Manchester.

Stamford.—Reconstruction of the Infirmary, for the B.G. :—
*Wallhead Bros., Ruskington, Sleaford £14,979

Sunderland.—Extensions to the premises of Messrs. Wilkinson, at Holmside. Mr. Geo. Talbot Brown, architect, 51, Fawcett-street :—
*Tees Side Bridge and Engineering Co., Middlesbrough.

Swansea.—External painting of the Central Library Buildings, for the C.B. :—
*H. Billings & Co. £110

Torquay.—Additions to Addison Cafe. Messrs. North, Robin & Wilsdon, FF.R.I.B.A., architects, Townsend House, Greycoat-place, S.W.1 :—
Steelwork—*H. Young & Co., Ltd., Westminster.
Flooring—*Athena Composition Flooring Co., Chiswick.

Walsall.—Reconstruction of the Wesleyan Church into a Central Hall, for the Wesleyan Authorities. Messrs. A. Brocklehurst & Co., F.R.I.B.A., architects, 10, Norfolk-street, Manchester :—
*J. & F. Wootton, Ltd., Walsall.

Wellingborough.—Erection of a public convenience, store shed, main entrance gates, and entrance steps at Eastfield Park, for the U.D.C. Mr. R. Stevenson Henshaw, engineer and surveyor, Council Offices, "Swanspool" :—

G. Henson & Sons, Wellingborough	£1,132
Murkitt & Co., Wellingborough	1,120
Thompson & Co., Irthlinborough	1,042
*C. Adams & Co., Wellingborough	1,040

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Wooler.—Bakery, for the Glendale Co-operative Society, Ltd. Mr. J. Wightman Douglas, L.R.I.B.A., chartered architect, 27, Bondgate Without, Alnwick :—
Mason and Bricklayer—*G. Beattie.
Joiners—*Fainington Bros.
Slaters and Plasterers—*Smart & Sons.
Plumber—*T. B. Ford.
Decorators—*J. Diamond & Sons.
(All of Wooler.)

Wrexham.—36 non-parlour type houses on the Huntroyde estate, for the T.C. Mr. J. England, Borough Engineer and Architect, 1, Grosvenor-road :—
*J. Gerrard & Sons, Ltd., Swinton, near Manchester.

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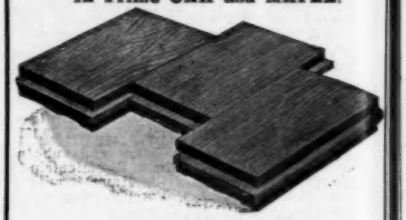
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